TCA
The Canadian Amateur

Canada's Amateur Radio Magazine
La Revue des Radioamateurs Canadiens
JULY / AUGUST 2013 – JUILLET / AOÛT 2013

Operating Away from the Shack

Publications Mail Agreement # 40028682 Registration # 09866

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"Operating Away from the Shack"

Welcome to a special issue of TCA.

For Radio Amateurs, operating away from the shack, the topic of this special issue of TCA, may conjure up a variety of impressions that depend on past experience. To many of us, it might suggest mobile operation from the family car, operating from a picnic table during a summer outing or perhaps operating a handy-talkie while exploring a city neighbourhood. But what about bicycle mobile on HF, or QRP operation from a mountain top? Maybe marine mobile or even aeronautical mobile has been part of your experience. If you consider everything from underground adventurers using cave radio to astronauts operating from orbit then the opportunities for "operating away from the shack" become almost limitless.

This special issue touches on a few of these topics. The objective is to stir up some interest in operating Amateur Radio in ways that we generally don't consider, but which we might find stimulating and enjoyable. After all, Amateur Radio is about establishing communications with other people and about sharing experiences as we communicate. Those who have had QSOs with commercial pilots or astronauts; with operators who are "at the summit" or at sea; with hams at similar exotic QTHs will often remember those special QSOs and may even want to try expanding their "usual" operating experience. That is the hope for this special issue.

Operating away from the comfort of the shack requires some careful planning. Power sources and antennas cannot be taken for granted. Spare parts, hand tools and miscellaneous other details often make the difference between a successful event and a showstopper. What about the weather, the terrain, the bugs, the food? The importance of preparation cannot be overstated.

In this issue, we present a number of special articles all related in some way to operating away from the shack and most presenting a distinctly Canadian perspective. We wish to thank all the authors who contributed to this effort.

In "Ham Radio… Will Travel" Pete Landry, VE2XPL, describes a family adventure involving a cross-country tour in an RV from Quebec to Alberta and back. Pete talks about the extensive preparations that he made before setting out. He mentions his use of APRS that enabled his friends back home to track his progress. He explains his choice of radio gear and the antennas that he used, with some comments on their performance. He also summarizes the power distribution system that he configured onboard the RV. Finally he mentions some of the helpful QSOs that he had during the trip.

In "QRP and Biking", Bill Kirby, VO1BB, introduces us to his QRP operation near St. John's, Newfoundland. Bill uses a Yaesu FT-817, a small gel cell and a variety of HF antennas that he originally carried about in a backpack. In this article, Bill describes a bike trailer that he reworked from a used child's bike trailer that allows him to carry all his gear behind his bike rather than on his back. Bill looks forward to meeting you on the bands.

In "Ham Seeds: Care and Nurture", Richard Sheridan, VE4ESX, describes a maritime adventure he and his wife spent on Lake Winnipeg. Richard explains that the lake is large and very susceptible to high winds and rough conditions. Their sailing adventure took them well up into the northern reaches of the lake where the only viable communications was a regular evening sked on 80m with Richard's buddies from Winnipeg. Richard points out how his boating friends were so impressed with the capabilities of Amateur Radio that many of them went on to obtain their certificates and become active hams themselves. These boaters thus became the "seeds" for the next crop of hams.

Bill Karle, VE4KZ, in "Bugs, Bands and Zero Beats…", explains some wire antennas that he has built and how he launches them into the trees at his campsite. Bill's antennas include a 20m dipole, a 15m vertical ground plane, a 40m vertical and an endfed wire antenna. He also provides some useful advice about fusing and grounding transceivers for safety reasons. We should all take careful note of these comments.

Canadian astronaut Chris Hadfield, VA3OOG, who recently commanded the International Space Station has made a huge impression on the Canadian public and on Canadian schoolchildren in particular. In the first installment of a two-part series entitled "Spaceship Commander Chris Hadfield Covers Canada", Maurice-André Vigneault VE3VIG, summarizes the extensive series of contacts arranged by Radio Amateurs that connected kids from every part of Canada with Chris while he orbited the planet. It is a tribute to the dedication of the many volunteer radio operators, and to Commander Hadfield, who made it all happen.

Dirk Moraal, VY1NM, is TCA's newest columnist. He presents a unique perspective from the Yukon. In his article "Spring Mobile", Dirk describes how he accidentally almost avoids an SSTV QSO with a Russian station – but didn't. He has the screenshots to prove it.

The column by Keith Baker, VA3KSF/KB1SF, "Getting Started on the Amateur Radio Satellites", takes a fascinating "out of this world" look into orbiting spacecraft and their astronaut crew who are licensed ham radio operators. Keith points out that Amateur Radio has been a part of manned space flights for over 25 years. It has flown on NASA's Space Shuttle, on the Russian *Mir* spacecraft, and is currently active on the International Space Station in the form of the ARISS program that is specifically designed to capture the interest of students. Keith provides some practical tips on how to set up your equipment in order to communicate with the International Space Station.

Our regular "Six Metres and Down" columnist, Dana Shtun, VE3DSS/VE3KU, takes us away from the shack and up to the high ground for "Hilltopping, Roving and Portable Operating on VHF/UHF and Microwave". He provides some excellent advice on how, where and when to set up for good DX operation on the shorter than shortwave bands. Dana does not recommend using a 4KV generator in the rain (hi).

EchoLink and its use "away from the shack" is the subject of Phil Boucher's, VE3BOC column "Not at the Shack?". Phil explains how EchoLink can be accessed by any certified Radio Amateur using a personal computer and an Internet connection, amongst other configurations.

These articles offer a glimpse into some of the ways that we can enjoy Amateur Radio – away from the shack. We hope that you will be encouraged to give it a try.

Finally, we wish to thank the regular TCA columnists who agreed to step aside for this issue and allow us to present this series of special articles. Their columns will return in the coming issues.

Dave Green, VE3TLY, Bill Karle, VE4KZ and Mike Kelly, VE3FFK

JULY & AUGUST 2013

TCA
The Canadian Amateur

JUILLET & AOÛT 2013

Canada's Amateur Radio Magazine
La Revue des RadioAmateurs Canadiens

VOLUME 41 NUMBER 4 – TCAMAG@YAHOO.CA – WWW.RAC.CA/TCA

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Printed in Canada by
St. Joseph Communications
Ottawa, ON, Canada
Imprimé au Canada sur les presses de St. Joseph Communications
Ottawa, ON, Canada

Publications Mail Agreement
No. 40028682
Registration No. 09866
Return Undeliverable Canadian Addresses to
Circulation Department:
217-720 Belfast Rd
Ottawa, ON K1G 0Z5

OUR COVER: "OPERATING AWAY FROM THE SHACK"

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RAC ANNUAL GENERAL MEETING

"International Space Station (ISS)Commander Chris Hadfield, the first Canadian to command the ISS, accomplished a feat never done before: connecting Canadian students from coast to coast to coast from space via Amateur Radio. And it could not be done without the enthusiasm and the generosity of the Canadian Commander with regards to Amateur Radio in space and Youth Education here on Earth." – see page 24.

"Last summer, I was taking all of my gear and putting it into a backpack and going to the field. The station consisted of a Yaesu FT-817, a small gel cell and, of course, a wire antenna strung up in the trees. The FT-817 rig is amazing. For just a little rig it can do a lot of stuff, but one of the main reasons I bought it was the low power consumption in receive and transmit. A gel cell would last a long time." – see page 44.

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The Canadian Amateur is published in Canada six times per year to provide Radio Amateurs, those interested in radio communications and electronics, and the general public with information related to the science of telecommunications.

Articles, reviews, letters, features, suggestions, photographs and essays are welcomed. Manuscripts should be legible and include the contributor's name, call sign, phone number(s) and addresses (mail, email and packet, as applicable).

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The Canadian Amateur is published by Radio Amateurs of Canada Inc.,
720 Belfast Road,
Suite 217, Ottawa, ON
K1G 0Z5

Indexed in the Canadian Periodical Index: ISSN 0834-3977.

Publications Mail Agreement No. 40028682.

Registration No. 09866.

The Canadian Amateur, publié six fois par an, est destiné à fournir aux radioAmateurs, à toute personne intéressée à la radio et à l'électronique et au grand public, des informations de toute nature relatives à la science des télécommunications.

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The Canadian Amateur est publié par la société Radio Amateurs du Canada Inc., 720 rue Belfast, Bureau 217, Ottawa, ON
K1G 0Z5.

Enregistré à l'Index des publications canadiennes sous le numéro ISSN 0834-3977.

Accord de publications diffusées par courrier : 40028682.

Numéro de matricule 09866.

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T2W 2J4
VE7 – VA7 Bureau (B)
Ken Clarke, VE7BC
12441 – 58A Avenue
Surrey, BC V3X 1X6
VE8 – VY0 Bureau (A, B)*
John Boudreau, VE8EV
PO Box 3099
Inuvik, NT X0E 0T0
VE9 – VY2 Bureau (B)
Bob Sherwood Memorial QSL Bureau
Sponsored by the Moncton Area ARC
Wayne Gillcash, VE1RR
Box 73
Moncton, NB E1C 8R9
VO Bureau (B, C)*
Rick Burke, VO1SA
Box 23099, Churchill Square
St. John's, NL A1B 4J9
VY1 Bureau (A, B)
Hugh Henderson, VY1HH
Box 33062
Whitehorse, YT Y1A 5Y5

(*Note: Method B is preferred).

Silent Keys – In Memoriam

With regret, we record the passing of these Amateur Radio operators.
RCA regrette de vous annoncer le décès des radioamateurs dont les noms suivent.:

VA3AF – Red Schofield, of Guelph, ON, at age 86, on March 17, 2013.
VA3CJH – Nora Giles, of Windsor, ON, at age 56, on April 1, 2013.
VA3ED – Ken Holmes, of Renfrew, ON, on March 14, 2013.
VA3RLF – Bob Fitts, of Peterborough, ON, at age 86, in April 24, 2013.
VA3TE – Ron Raymer, of Toronto, ON, at age 85, on March 15, 2013.
VE1ACE – Malcolm Mullen, of Weymouth, NS, at age 76, on May 13, 2013.
VE1AL – Alan Leith, of Sydney, NS, at age 66, on April 11, 2013.
VE1CUZ – David "Cuzie" Cuzner, of Sydney Mines, NS, at age 70, on May 7, 2013.
VE1FOG – Allison Harris, of Enfield, NS, at age 86, on April 6, 2013.
VE1GWL – Geoffrey Laurence, of Dartmouth, NS, at age 87, on May 21, 2013.
VE1VK – Roger Adams, of Kingston, NS, at age 72, on May 2, 2013.
VE2AYU – Reginald Brearley, of Pointe-Claire, QC, at age 85, on April 1, 2013.
VE3AUH – Reino Kokkila, of Caledon East, ON, at age 76, on April 6, 2013.
VE3BFB – Fred Barnett, of North York, ON, at age 90, on October 7, 2012.
VE3DHR – Norman Richardson, of Hawkesbury, ON, at age 82, on May 12, 2013.
VE3EAU* – John Hunt, of Almonte, ON, at age 70, on October 23, 2011.
VE3EID – Moe Iverson, of Windsor, ON, at age 90, on November 4, 2012.
VE3EVL – John Guay, of Verona, ON, at age 67, on December 8, 2012.
VE3GWS – George Sansom, of Kingston, ON, at age 67, on May 20, 2013.
VE3HTI – Hector Turner, of Sarnia, ON, at age 77, on May 23, 2013.
VE3JFS – Fred Stankiewicz, of Sarnia, ON, at age 90, on April 17, 2013.
VE3KUN – Joe Cammaert, of Merlin, ON, at age 73, on February 16, 2013.
VE3LLZ – Bob Leet, of North York, ON, at age 97, on April 29, 2013.
VE3NIT – Gary Westhouse, of Etobicoke, ON, at age 90, on April 9, 2013.
VE3OQM – Bob Morgan, of Hamilton, ON, on December 25, 2012.
VE3TKN – Mark Tekenos-Levy, of Sarsfield, ON, at age 57, on May 18, 2013.
VE3UFF – Gord Gault, of Scarborough, ON, at age 90, on April 14, 2013.
VE4ST – Sigrun "Bubbles" Timlick, of Winnipeg, MB, at age 94, on May 24, 2013.
VE5AO – Leo Hobson, of Saskatoon, SK, at age 96, in August 17, 2012.
VE5XM – Robert Dahl, of Swift Current, SK, at age 96, on October 18, 2011.
VE6BMM – Barry McVicar, of Calgary, AB, at age 86, on March 8, 2013.
VE6DVP – Don Phillippe, of Hinton, AB, at age 63, on February 4, 2013.
VE6WR –Art Fisher, of Calgary, AB, at age 61, on April 30, 2013.
VE6WU – Ethier Emil, of Edmonton, AB, at age 82, on January 10, 2013.
VE7AJG – Glenn Chapman, of Maple Ridge, BC, at age 71, on May 13, 2013.
VE7AXW – Alan Wilson, of Victoria, BC, at age 88, on April 18, 2012.
VE7BCF – Ary Spaans, of Prince George, BC, at age 87, on November 4, 2012.
VE7CF – Jack Wiebe (VE7BTO), of Burnaby, BC, at age 77, on May 16, 2013.
VE7CIM – Bill Slaughter (VE7WS), of Burnaby, BC, at age 73, on May 18, 2013.
VE7CN – Randy Corran, of Vancouver, BC, at age 90, on January 29, 2013.
VE7DUG – Doug Blakely, of Dieppe, NB, at age 67, on March 30, 2013.
VE7ENO – Christian Loelke, of Kelowna, BC, on April 11, 2013.
VE7ERN – Ernie Shorthouse, of Ashcroft, BC, at age 71, on May 6, 2013.
VE7FHT – Tom Humphreys, of West Vancouver, BC, at age 92, on May 14, 2013.
VE7GT – Bill Krogel, of North Saanich, BC, at age 90, on August 15, 2012.
VE7XIN – Eric Crossin, of North Vancouver, BC age 89, on May 4, 2013.
VE7ZM – Bruce Gellatly, of Victoria, BC, at age 83, on April 15, 2013.
VE9AZE – Valmon Léger, of Cocagne, NB, at age 74, on March 18, 2013.
VY2EH – Engel Hart, of Belfast, PE, on May 21, 2013.
VY2MQ – Wally MacKenzie, of Charlottetown, PE, at age 86, on May 21, 2013.

*Note: In the above list an * indicates a previous call sign or that a call sign has been reissued. The list of Silent Keys is prepared by volunteers at RAC Headquarters at <rachq@rac.ca>.*

RAC NATIONAL INCOMING QSL BUREAU

Following changes made to the RAC QSL Bureau system, RAC members are reminded that all VE/VA cards to VE/VA Amateurs are to be sent to the RAC Incoming Bureau in Saint John, New Brunswick and not to the Outgoing QSL Bureau. This QSL service is only available to RAC members. RAC National Incoming QSL Bureau: PO Box 51, Saint John, NB, E2L 3X1

AROUND THE CORNER...

People, Places, News and Events on the Canadian Amateur Radio Scene

The following news items have been compiled from Industry Canada, RAC bulletins and the RAC website at <www.rac.ca>. To subscribe to RAC bulletins visit <http://rac.eton.ca/racbullemail.htm>. Thanks to RAC Bulletin Editor – Vernon Ikeda, VE2MBS/VE2QQ. Traduction par Serge Langlois, VE2AWR.

RADIO AMATEUR OF CANADA FOUNDATION GRANTS

Radio Amateurs of Canada is pleased to announce that we are seeking applications for grants from Amateurs across Canada in the following categories:

- Scholastic Grants for deserving Amateur Radio operators
- Research Grants for research and development related to Amateur Radio
- Community Grants for charitable institutions, senior homes and youth centres
- Emergency Grants for radio equipment for emergency service groups

The Board of Directors is especially interested in awarding grants to deserving young Amateur Radio operators who are furthering their education at the College or University level in an Electrical Engineering course. If you are enrolled in a Science, Technology, Engineering or Mathematics (STEM) program we also encourage you to submit a request. Send your College / University name, recent transcript, Amateur Radio Certificate and a brief biography to RAC. Further details and application forms are available at the RAC website: http://www.rac.ca/en/rac/donations/foundation/grant-info.php

If you have a child or grandchild in college or university this would be a great way to assist them furthering their education in the technology fields. Using the knowledge obtained from their Amateur Radio skills to further their engineering ability.

The Board of Directors is pleased to thank all the Amateurs across Canada who have generously donated to this program. If you wish to contribute please contact RAC HQ for further details at <rachq@rac.ca>.

I will be the contact person for this round (2013) of grant applications.

Bill Unger, VE3XT <ve3xt@rac.ca>
RAC Director – Ontario North East

BOURSES DE LA FONDATION RADIO AMATEURS DU CANADA

Radio Amateurs du Canada (RAC) a le plaisir d'annoncer que nous requérons des demandes pour des bourses de la part de radioamateurs à travers le Canada dans les catégories suivantes:

- Bourses scolaires pour des radioamateurs méritants
- Bourses de recherches pour des recherches et développements reliées à la radio amateur
- Bourses communautaires pour des institutions charitables, maisons pour personnes agées et centres de jeunesse
- Bourses d'urgence pour de l'équipement radio pour des groupes de services d'urgence

Le conseil d'administration est spécialement intéressé à accorder des bourses à des jeunes radioamateurs méritants qui poursuivent leur éducation au niveau collégial ou universitaire dans un cours de génie électrique. Si vous êtes inscrit à un programme en science, technologie, ingénierie ou mathématiques (STIM) nous vous incitons également à soumettre une requête. Envoyez le nom de votre collège / université, votre dossier de scolarité récent, votre certificat de radio amateur et une courte biographie à RAC. De plus amples informations et des formulaires de demande sont disponibes au site web de RAC: http://www.rac.ca/fr/rac/donations/foundation/grant-info.php

Si vous avez un enfant ou un petit-enfant dans un collège ou une université cela serait un excellent moyen de les aider à poursuivre leur éducation dans des domaines technologiques, en utilisant leurs connaissances acquises à travers leurs compétences en radio amateur pour augmenter leurs aptitudes en ingénierie.

Le conseil d'administration est heureux de remercier tous les radioamateurs à travers le Canada qui ont donné généreusement pour ce programme. Si vous désirez contribuer, prière de contacter le QG de RAC à <rachq@rac.ca> pour d'autres détails.

Je serai la personne à contacter pour cette session (2013) de demandes de bourses.

Bill Unger, VE3XT <ve3xt@rac.ca>
Directeur de RAC – Ontario nord/est

BC-YUKON SECTION MANAGER RE-ELECTED

Congratulations to Paul Giffin, VA7MPG, who was recently re-elected for a two-year term of office that will begin on July 1, 2013.

He ran unopposed eliminating the need for a balloted election.

Doug Mercer, VO1DTM/VO1DM CEC
Chief Field Services Officer
Radio Amateurs of Canada

LE GÉRANT DE SECTION POUR C.B.-YUKON RÉÉLU

Félicitations à Paul Giffin, VA7MPG, qui a récemment été réélu pour un terme de deux ans qui débutera le 1er juillet 2013.

Il s'est présenté sans opposition, éliminant le besoin d'une élection à scrutin.

Doug Mercer, VO1DTM/VO1DM CEC
Responsable en chef des services extérieurs – Radio Amateurs du Canada

FEEDBACK: LETTERS TO THE EDITOR

"In his letter on page 5 of the May/June 2013 issue of TCA, Don Dorward, VA3DDN, points out that I could have purchased a DVM module for less than it costs to make the digital voltmeter I described in my March/April 2013 article "Two Voltmeters for Amateur Radio Stations".

In this regard I am sure he is correct. In saving a few dollars, however, I would have deprived myself of some frustration and many enjoyable hours of experimentation and learning as well as the pleasure of making something work.

Whether or not the voltmeters I described are worth building depends on one's purpose. Since the software is available from the RAC website, both voltmeters are straightforward projects that may be of interest for providing some circuit and/or software ideas."

Allen Wootton, VE7BQO
Terrace, British Columbia

"Just received the latest TCA, and was delighted to see the Pitcairn DXpedition article now translated to English.

My sincerest thanks, and to Alan Bulley, VA2UK, for the hours of work invested in the translation."

David Klatt, VE5GN
Saskatchewan

AND AROUND THE WORLD

VE2SOTA MEGACTIVATION

Following its first edition success, the Summits On The Air association for Quebec (VE2SOTA) is setting up a new SOTA group activation which will took place on July 20 and 21in the Mont-Ste-Anne area, near Quebec City.

This is an excellent chance for Amateur Radio operators with or without experience to spend a nice day in the mountain taking part to worldwide Amateur Radio contacts on VHF and HF as activators (those who transmit from the summit of SOTA peaks) with chasers (those who are trying to contact SOTA activators), in all modes. It's an excellent occasion to learn about HF portable and to quickly learn how to operate in such conditions.

Lodging and schedule information will be available on the association's website at: http://www.ve2sota.org

MÉGACTIVATION VE2SOTA

Suite au succès de sa première édition, l'association SOTA pour la province de Québec (VE2SOTA) organise une nouvelle activation Summits on the air de groupe, les 20 et 21 juillet 2013, dans le secteur du Mont-Ste-Anne, région de Québec.

Pour l'occasion, les radioamateurs expérimentés ou non qui veulent passer une très belle journée en montagne pourront prendre part à des communications radioamateur à travers le monde sur VHF et HF en tant qu'activateurs (ceux qui transmettent à partir d'un sommet SOTA) avec des chasseurs (ceux qui cherchent à contacter les activateurs SOTA), ce dans tous les modes permis.

C'est une excellente occasion de découvrir une facette fantastique de la radioamateur HF portable et d'apprendre rapidement comment s'y prendre.

Des informations relatives à l'hébergement et à l'horaire seront disponibles sur le site internet de l'association qui est : http://www.ve2sota.org

CAVE RADIO

An Opportunity for Radio Amateurs & Electronics Enthusiasts

Communicating between a cave and the surface is a formidable challenge yet it's a common requirement for underground explorers and it plays a vital role in coordinating cave rescues. With the growth of interest in low frequency radio in recent years, Radio Amateurs and electronic enthusiasts are well placed to make a contribution in this area. Indeed, many of the cave radio currently used by the world's volunteer cave rescue teams were developed by Radio Amateurs.

If you'd like to get involved in this unusual yet fascinating area of radio communication, and perhaps make a contribution to the state-of-the-art, the Journal of the Cave Radio and Electronics Group (CREG), published by the British Cave Research Association (BCRA), is essential reading. While we are based in the UK we aim to provide a service for the international community and have subscribers in several countries.

With the recent introduction of online access, costing just £4, it's never been cheaper to learn about sub-surface communication. If you want to get a better feel for the sort of articles published in the CREG Journal, just head to http://bcra.org.uk/pub/cregj/ where you can see a contents list for the current and previous issues.

– Mike Bedford, BCRA CREG

FT5ZM AMSTERDAM ISLAND DXPEDITION

In January-February of 2014 a team of experienced DXpedition Amateurs will depart from Fremantle, Australia on the Motor Vessel *Braveheart* bound for Amsterdam Island, a French possession deep in the Indian Ocean between Africa and India close to the Antarctic circle.

The travel time will be eight to nine days (possibly more depending on sea conditions) each way. No travel toward the Antarctic comes cheaply and we are appealing to the DX community for monetary support as the estimated total expenditures are $400,000 plus in US dollars.

We have some generous support from NCDXF and INDEXA and hopefully we will hear from other organizations in the near future. Support is not given lightly by Foundations without intense scrutiny of the applicants, the team of operators involved, and the provision of necessary documentation from the governing authorities. This has been accomplished. We have the landing permission, we have the licence and the call sign (FT5ZM) and we have the transportation secured.

The Expedition is headed by Ralph Fedor, K0IR, who is well known for organizing expeditions as well as participating in other high profile expeditions in the past.

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The team members are also well known for their past participation in various successful expeditions. Team members are as follows: Nodir, EY8MM, Michel, FM5CD, Jorge, HK1R, Bob, K4UEE, Craig, K9CT, Ralph, K0IR, Erling, LA6VM, Bob, N2OO, George, N4GRN, Arnie, N6HC, Andy, UA3AB, Neil, VA7DX, Steve, VE7CT and Jerry, WB9Z.

Since Amsterdam Island ranks #4 most wanted in the world we anticipate great interest and are asking support not only from Organizations and Foundations but also from individuals' donations that generally comprise the bulk.

It is significant to realize that because of the boat chartering and pre-expedition equipment shipping expenses, these are costs that are "up-front" and comprise a large part of the overall expenses. In any expedition, should there be any shortfall, in the aftermath it is the team members that have to bear it even though the initial up-front dollars from the team is substantial along with their personal transportation expenses to and from the point of the boat's departure.

Should you wish to donate toward the expedition costs via PayPal, please go to our website at http://www.amsterdamdx.org/ for full details. The QSL Manager will be N2OO and/or you can use OQRS as per other past expeditions. Canadians can send their cheques if they wish to Steve Wright, VE7CT, 621-194 Street, Surrey, BC V3S 9R9. Receipts will be issued if requested.

An amount of $500 US ensures your club logo on the QSL, $250 will show your club listing. Individuals who donate $100 or more will have their call sign listed on the card as well.

We hope to have all DXers in the log and thanks in advance for your support.

73, Steve Wright, VE7CT

A MESSAGE FROM THE PRESIDENT / UN MESSAGE DU PRÉSIDENT

Geoff Bawden, VE4BAW
204-295-0714
ve4baw@rac.ca

By the time that you read this we will have completed at least four Webinars with RAC members to discuss where we have been, where we are at present, and where we are going in the future.

Affiliated club representatives, field organization members, Maple Leaf Operator Members and other invitees have attended and given us feedback on our future plans and advised us of any regional concerns and issues.

You may have seen the RAC bulletins that we issued about these sessions. Eventually we will hold sessions in each region in Canada. Stay tuned. RAC has moved from our fiscal recovery stage to a new stage: grow, thrive and influence.

More than 250 individuals stopped by our booth at the Dayton Hamvention, signed the guest book and chatted with the Directors, Executive and volunteers who operated the booth. We were available to answer any question that members (or non-members!) were prepared to ask. Memberships were sold, including some to US Amateurs who were not afraid to pay $90 for a membership or $48 for an electronic TCA membership. The RSGB, Qatar, JARL, DARC, Curaçao and the IARU were also represented at Dayton and of course there was the huge ARRL contingent. Such events represent an unparalleled opportunity to talk to a range of persons from around the globe as well as to our friends in the US. For more information on Dayton please see the article on page 22.

It was a pleasure to be able to take advantage of the fact that Scott Wood, VE1QD and I were both in Dayton and I was able to present Scott with the 2012 Canadian Radio Amateur of the Year Award for his contribution to Amateur Radio in Canada. Scott has demonstrated outstanding leadership locally, regionally and internationally in his 60 years as an Amateur. Scott's championing and organizing of the Maritime DX Forum created a Forum for eight years that was world class.

Please mark Saturday, October 5 in your calendars for our Annual General Meeting (AGM). I wish to thank the Hamilton Amateur Radio Club for inviting us to hold our AGM in conjunction with the Hamilton ARC Hamfest, which will be held in Marritt Hall at the Ancaster Fair Grounds in Ancaster, Ontario. RAC will have a booth at the hamfest. Agenda items will include: Report of the President; Review of the 2012 finances; Appointment of auditors for 2013; Amendment to RAC Constitution; and a Question and Answer period. I always enjoy the general Question and Answer period that occurs after the business section so please bring your best questions. A summary of the 2012 audit will be published in the September-October 2013 TCA along with the Minutes of the Annual General Meeting. For more information on the RAC Annual General Meeting and the Hamilton ARC Hamfest please see the article on page 16.

Take care. I hope to see you in Ancaster.

Geoff Bawden, VE4BAW – RAC President and Chair

Au moment où vous lirez ce message, nous aurons tenu au moins quatre Webinars avec des membres de RAC pour discuter de ce que nous avons réalisé, de ce que nous faisons actuellement et de ce nous ferons à l'avenir. Nous, représentants de clubs affiliés, membres des organisations extérieures sur le terrain, membres de Maple Leaf Operator et autres invités, avons échangé en discutant notamment de nos plans d'avenir et de nos intérêts et enjeux régionaux. Vous avez peut-être lu les bulletins de RAC que nous avons produits suite à ces sessions. Éventuellement, nous tiendrons des sessions dans chacune des régions du Canada. Demeurez attentifs. RAC est passé de son stage de récupération financière à un nouveau stage: celui de la croissance, du développement et de l'influence dans notre milieu.

Plus de 250 visiteurs se sont arrêtés à notre kiosque au Hamvention de Dayton, signé le livre des présences et conversé avec les directeurs, les membres de l'Exécutif et les bénévoles responsables du kiosque. Nous étions disponibles pour répondre à toutes les questions des membres et des non membres. Plusieurs cartes de membres ont été vendues, dont quelques unes à des amateurs américains « non effrayés » de payer 90 $ pour une carte, ou 48 $ pour un abonnement à la version électronique de TCA. Le RSGB, Qatar, JARL, DARC, Curaçao et UIRA (IARU) étaient aussi représentés à Dayton, de même que, bien sûr, l' ARRL par un important contingentement. Un tel évènement représente une incomparable opportunité de parler à un éventail de personnes de partout au monde tout autant qu'à nos amis des États-Unis. Pour plus d'informations à propos de Dayton, voyez l'article à la page 22.

Ce fut un plaisir de pouvoir profiter de la présence de Scott Wood, VE1QD à Dayton et de le présenter sous son titre de récipiendaire du prix du « Radioamateur canadien de l'année 2012 » en raison de sa contribution au radioamateurisme au Canada. Scott a démontré localement, régionalement et internationalement son exceptionnel leadership au cours de ses 60 ans comme amateur. Le forum DX dans les provinces maritimes organisé par Scott de main de maître est devenu pendant huit ans un forum de classe mondiale.

S.v.p., notez bien la date du samedi 5 octobre sur votre calendrier; c'est celle de notre Assemblée générale annuelle (AGM). Je désire remercier le Hamilton Amateur Radio Club de nous inviter à tenir notre assemblée (AGM) conjointement avec le Hamilton ARC Hamfest, au Marritt Hall du Fair Grounds à Ancaster, Ontario. RAC aura un kiosque au hamfest. L'ordre du jour inclura : le rapport du président, la présentation des états financiers, la nomination du vérificateur pour 2013, des amendements à la constitution de RAC et une période de questions et de réponses. J'ai toujours aimé la période des questions et réponses qui suit la section des « affaires ». S.v.p venez avec vos meilleures questions. Un sommaire du rapport de l'audition de 2012 sera publié dans le TCA des mois de septembre-octobre 2013, en même temps que le compte rendu de l'Assemblée générale annuelle. Pour plus d'informations sur l'Assemblée générale annuelle de RAC et le hamfest du Hamilton ARC, s.v.p. voir l'article à la page 17.

Prenez soin de vous. J'espère vous voir à Ancaster.

Geoff Bawden, VE4BAW – RAC Président-directeur général

– Traduction par Claude Lalande, VE2LCF

2012 RADIO AMATEUR OF THE YEAR: K. SCOTT WOOD, VE1QD

RAC President Geoff Bawden, VE4BAW, presents Scott Wood, VE1QD, with the Canadian Radio Amateur of the Year Award at the Dayton Hamvention in front of the RAC Booth.

Featured in the above photo are: Bill Unger, VE3XT – RAC Ontario North/East Director; Tim Ellam, VE6SH – International Amateur Radio Union President; Scott Wood, VE1QD; Geoff Bawden, VE4BAW – RAC President; and Mitch Mitchell, VE6OH, RAC Director Alberta, Northwest Territories and Nunavut.

The RAC Board of Directors takes great pleasure in announcing the selection of K. Scott Wood, VE1QD, of Halifax, Nova Scotia as the Canadian Radio Amateur of the Year for 2012.

Scott celebrated 60 years in Amateur Radio in 2012. During these years, Scott has contributed in many ways – both to our hobby and to radio in the broader sense – as a net controller in the Oregon Fire Service; as a radio operator in the US Naval Reserve; as a member of the Board of Directors for Radio for Peace International; in contesting and DXing, and in Elmering aspiring new hams, both young and old. He currently serves as the RAC Assistant Regional Director for the Halifax region, is the President of the Halifax Amateur Radio Club, and is a tireless supporter and promoter of our national organization.

The awarding of Radio Amateur of the Year to Scott is based not only on the leadership in Amateur Radio that he has demonstrated – locally, regionally and internationally – but also, and primarily, on his vision, enthusiasm, dogged determination and commitment to excellence in the area of Amateur Radio DXing through the establishment and running of the Maritime DX Forum for eight consecutive years – 2004 to 2011 inclusive.

The DX Forum was Scott's "brain child" from its inception in 2004. Scott envisioned the forum to be a venue where DXers in the region (Atlantic Canada) could come together annually to hear world-class speakers – as well as local DX experts – speak about important and current DX topics, and to provide a forum in which to share ideas with some of the best operators and leaders within the Amateur Radio community.

True to his Unitarian philosophy, Scott strived to ensure that the Forum was truly inclusive – DXers with little or no experience and those who were dedicated to this aspect of our hobby were all encouraged to attend and to participate fully.

For those who could not afford the registration cost, Scott established a support fund to ensure no one was excluded for any reason. To a very large extent the success that this annual gathering of DX enthusiasts in Halifax has been the result of the tremendous amount of time and effort that Scott invested, both on-air and through personal contacts that he has made throughout the Canadian Maritime provinces, nationally and internationally. Perhaps the most successful of its kind in Canada, the Maritime DX Forum has drawn attendees not just from Atlantic Canada, but from Ontario, Alberta, British Columbia, the North Eastern US states, the United Kingdom, Europe and as far away as Japan.

Scott organized and held the inaugural DX Forum gathering of 20 or so DX enthusiasts in August 2004 at his home on Moser Island on St. Margaret's Bay, Nova Scotia, and from there the event grew in leaps and bounds to include some of the most well-known Radio Amateurs in Canada, the United States and internationally. The DX Forum is clearly Scott's seminal contribution to Amateur Radio.

RAC would like to thank Howard Dickson, VE1DHD, Gary Bartlett, VE1RGB and John Scott, VE1JS, for nominating Scott Wood for the Award and for providing the information for this article.

Geoff Bawden, VE4BAW
RAC President and Chair

RAC

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W: www.qsl.net/ve3dss

HILLTOPPING

The whole concept of hilltopping goes way, way back to the very beginning of our activities above 30 MHz. Yet, many of the discoveries of the 1930s and 40s are still very relevant for 21st Century VHFers.

Fortuitously, those truisms, and modern technology give us the ability to make great strides and work DX – particularly for those not able to establish a home station with a big tower and antennas.

So just what is this all about?

While VHF/UHF signals generally follow a line-of-sight path – as the propaganda of the Amateur "experts" have espoused *ad nauseum* for decades – for the DXer signals can and do follow the curvature of the earth, or scatter out way beyond line of sight. That's what makes DXing so enticing: this mystery of unknown DX that is fleeting and sporadic in nature.

As described below and as shown in the photos, there are certain things you can do to make the "magic" more repeatable.

1) A radio quiet location (no QRM from so called unintentional radiators)

2) A clear horizon in the directions you want to work

3) A high antenna (watch your RF exposure, especially at 432 and above)

4) Low loss high quality feedlines and connectors

5) High power and high Effective Radiated Power (ERP) is possible

6) A good receiver with low noise front end

7) Geophysical events to boost your DX distance (Aurora, Meteor Scatter, Sporadic E, Stalled weather fronts, layering of air mass boundaries over water, Aircraft reflection, the Moon, scattering off buildings to name a few)

8) People listening at the "other end" – make skeds with people in different grids – and let people know that you will be on

9) VHF/UHF Contests (or Sprints)

10) VHF/UHF Activity Nights: These are nights set aside for a specific band – Sunday 50 MHz (6 pm); Monday 144 MHz (7 pm onward); Tuesday 222 MHz (8 pm); Wednesday 432 MHz (9 pm); Thursday 1296 MHz (9 pm); and Friday 903 (9 pm)

HARDWARE CONSIDERATIONS

Speaking of generators, back in the day the only way to get power on VHF was with gear running off 110/220 AC. Today, thankfully you can get high power amplifiers that run off 12/28 or 50 VDC which makes things a tad easier in many ways.

Rather than hauling along a generator, a 4 kV power supply and all the stuff that goes with high power, I'd much rather deal with 50 VDC than 4 kV – especially in a rainstorm! *(but that's another story)*

You will need some other items as well: a vehicle, generator, gasoline, operating position, radios, keyer, laptop, antennas, coax, lots of "wires" (isn't this wireless…?) for power, controls etc.

In addition a good compass to set your bearings, support structure, rotor(s), food and snacks, generator, possibly solar panels, warm clothes and hot weather clothes, and also make sure people know where you are and what your schedule for operating is (for safety).

It sounds like a lot but really it isn't if one plans carefully – it's no worse than Field Day, unless you do this in the dead of winter that is.

PICKING YOUR HILL

So how does one find that magic spot in your neighbourhood? First, grab some topographic maps and read the elevations shown on those maps for your area.

The maps will give you a general idea of the high spots and low spots, blockages etc.

Next, hop in the car, put the FM radio on a distant rock station (or classical if you are that way inclined) and start cruising. Following the maps, try to find that spot where the signal from that distant station peaks! Once you have that general fix, try to find a suitable parking spot.

Ideally, a farmer's field (with permission), a parking pull off, local park or lookout would be good. Keep in mind that you may want to stay in one spot for a couple of nights so its always best to clear things with the locals first, especially the local constabulary. Ideally, if you can find a local Amateur who is a farmer – and who has an XYL that loves company and is an expert at baking – not only can you operate, but you will not go hungry, and you might get free electric power to boot! *(that's also a whole other story)*

Steve, VE3SMA, is the main instigator for microwaving in Southwest Ontario and frequents high spots to work long haul DX on 10 GHz.

Oh, one other thing about hills...

At certain times of the year, we experience Tropo, where layers of warm and cold air form ducts that propagate signals long distances with low losses.

Sometimes these ducts form well above ground and the only way to get a signal into them is to drive up into one.

This is what the guys in Hawaii do to work California on 144, 222, 432, 1296 and 2304. So keep that in mind: you could just work Florida on tropo from Ontario by being at the right height – it's been done.

VEHICLES

With a single band setup and a small yagi you can get away with a passenger car, with no problems. Of course as you add bands, boost power and increase the complexity of wiring, coax, antennas, rotors etc, the sky is the limit. An SUV, a panel van or best of all a motorhome can sure make operating easy! It's what you can afford and what you want to do.

CONTESTS

Ok, so you have your gear, you have your location, so now what? Why are you there?

There are a number of events that happen during each year that boost activity on VHF and UHF to the max. These are the various contests sponsored by such groups as RAC, the ARRL, the various US VHF Societies, CQ Magazine etc.

Each have different entry classes that include high power, low power, portable, rover, mobile and more.

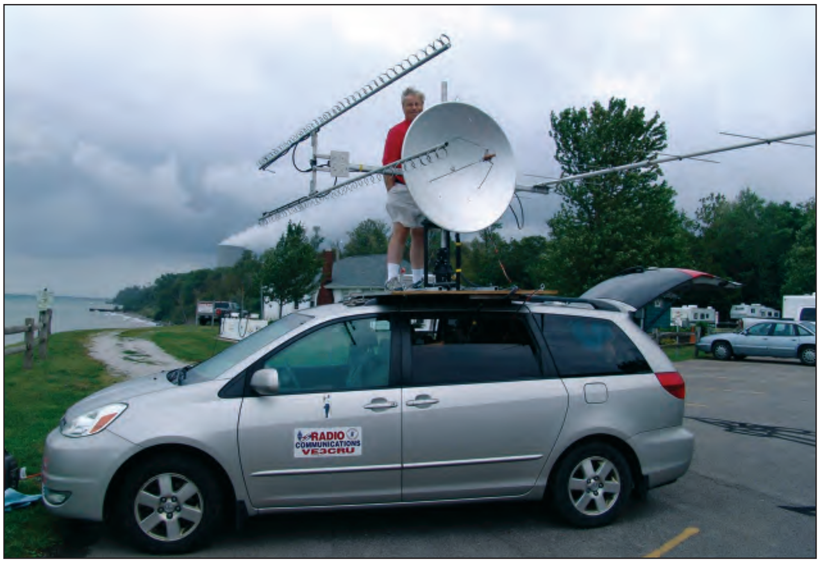
All of these events have the Maidenhead Grid Square as part of the scoring process so there is an incentive there to find a high spot in a "rare" grid – you will instantly be a popular DX!

There are numerous rare grids in the northern parts of Ontario, for example, that are served with roads that would make for an ideal DXpedition. In addition, consider combining your summer vacation at your camp or cottage with some operating. I used to operate from the family cottage in EN94 on Lake Huron with a KW on 6 and 2 metres and that was pretty interesting with a clear shot to the west over Lake Huron, and zero QRN.

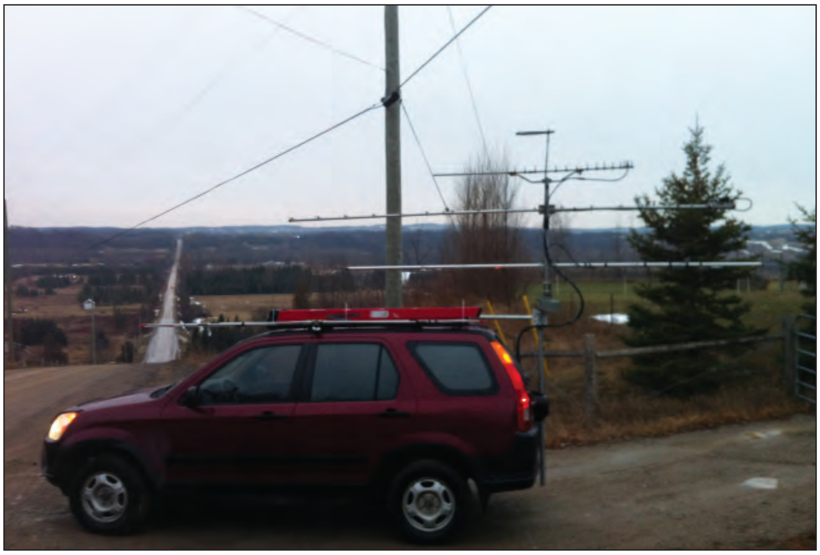
So give it a try, take your SSB/CW multimode radio and throw it in the vehicle with a good antenna and go see what you can work! You might just get hooked on being a rover!

– 73, Dana, VE3KU/VE3DSS

Pete, VE3IKV, likes to vacation in rare grids and hand out DX contacts to the masses on 50 MHz!



Bill, VE3CRU, operates all bands and his microwave setup covers 903 to 5763 MHz.



Peter, VA3ELE's compact setup means he can quickly find that magic spot to operate 144/432 or 1296 MHz.

HAMMOND MUSEUM OF RADIO...

"COMMUNICATION THROUGH THE AGES"

Fred Hammond, VE3HC, became a licensed Amateur in 1929 and began collecting radios about the same time, subsequently accumulating an extensive collection of rare and historically significant pieces which led to the formation of the Hammond Museum of Radio in 1982. Fred was named to the Canadian Amateur Hall of Fame in 1997, enjoyed a long and honourable career in Amateur Radio and was respected around the world for his expertise and generosity.

When you enter the Hammond Museum of Radio you realize at once that the vista unfolded before you marks it not as the resting place of long-silent radios but as a panorama of the development of radio throughout the years.

There are top-ranking examples of both the cabinet-makers' art presented in the beautiful woods of domestic radio construction, and in the aluminum and steel of Amateur Radio equipment. There are photographs and stories of the inventors who created the era and the challenges of their time. Combined with lovely old walnut floor radios, Amateur receivers and transmitting equipment are early television sets, microphones, speakers, military equipment and a century of tubes.

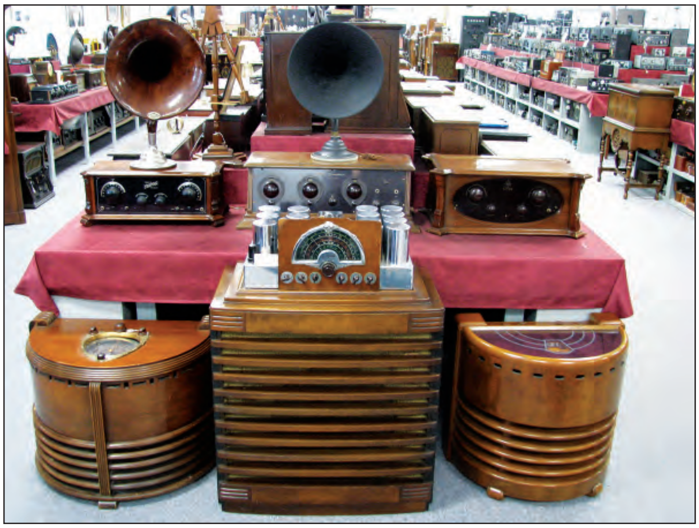
The museum contains many types of communications equipment, the most treasured being a 1901 Marconi spark transmitter of the type used as a backup transmitter on the *Titanic* and her sister ships *Britannic* and *Olympic*. Dozens of famous radio manufacturing companies are represented in the many models of broadcast receivers which appeared in the market for use in the home; companies such as RCA, Crosley, Stromberg-Carlson, Sparton, Philco, Zenith and several smaller companies which eventually failed due to market conditions or were absorbed by larger companies.

In recognition of the many innovations and advancements that have been made thanks to Amateur Radio operators, the Amateur collection holds a prominent place in the Museum. On display are receivers and transmitters from most well-known manufacturers as well as some international pieces. The Collins collection is highlighted by a pair of KW-1 transmitters, a pair of "Gold Dust Twins" and a recent donation of a rare 51J5.

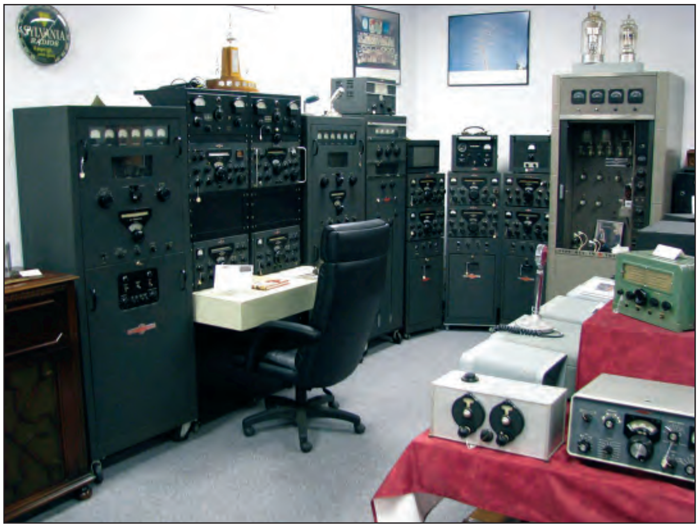
The Hammond Museum of Radio flourishes not only as a legacy to Fred Hammond but to the many donors whose radios make up almost 30% of the collection. Items exhibited in the museum reveal the development of radio throughout the past 100 years. Amateur Radio stations VE3HC and VE3BJ commemorate the foresight of the museum's founder and emphasize the importance of Amateur Radio to the overall development of wireless communication.

The museum is located about 50 minutes west of Toronto in the city of Guelph. For information and tours please contact Noreen Hann at 519-822-2960, or by email at nirwin@hammfg.com or visit: http://www.hammondmuseumofradio.org

Noreen Hann, VE3AQZ
Curator – Hammond Museum of Radio



Mercury Super 10, The Canadian, Higel, McMurdo Silver Masterpiece V, Zenith and Stromberg Carlson chairside radios.



Collins Collection: KW1 transmitters, 75A-4 receivers, 51J Series, "Gold Dust Twins".

Amateur Radio collection including Heathkit, Hallicrafters, Breting, Collins, Homebrew and many more. Can you spot your first radio?

AMATEUR RADIO WILL TRAVEL!

Pete Landry, VE2XPL

Last summer, my family and I travelled across North America. It was a lot of fun, but presented its share of challenges too. Thanks to some good old fashioned planning and a lot of flexibility along the way, everything went...well, pretty much as planned. This article chronicles our adventure and explains the preparations I thought necessary to successfully and safely complete such a long trip, with emphasis placed on Amateur Radio equipment: why it was chosen and how I decided to set it up. We'll also take you along with us so you can see how it all worked out.

Young's General Store and the original statue of Wawa Ontario's famous Goose are worth the 2 kilometre detour off the main highway.

My wife Sharon and I had lived in Alberta for many years before moving to Quebec in 2005. Our daughters Isabelle and Meagan were born there. We decided it was time to visit our old stomping grounds, see family and friends, and show the harmonics their place of origin.

This was going to be an epic journey, much longer than we had previously undertaken in our old (but reliable) 22-foot motorhome, which we affectionately call "korova" (Russian for "the cow"). We started planning for the trip 12 months in advance. Nothing was overlooked: detailed travel itinerary; people and places to see; emergency services along our route; estimated cost of fuel, food; etc.

The trip would start from our home in suburban Montreal and take us west to Canmore, Alberta via the Trans-Canada Highway, while the return trip would see us coming east via US Route 2, a highway spanning 4,150 kilometres across the northern continental United States. We planned our route so that we would drive no more than three- to four-hour legs. Stopping to move around and stretch would help keep everyone more alert while driving and, hopefully, keep the kids from getting too bored ("Are we there yet?"). As an added bonus, this practice would allow us the opportunity to see a lot more along the way.

Amateur Radio was going to play an important role on this journey. It would give us the ability to communicate with fellow Amateurs and gather firsthand information about the various areas we would be passing through: where to eat; where to sleep; interesting places to visit (or not visit... Hi); weather and road information; and more. Amateur Radio would also be a great complement to cellular phone technology in case of an emergency. I additionally wanted to include APRS technology because it would allow our friends the possibility of tracking our movements in real-time on the Web, and give us the ability to identify and communicate with other Amateurs that also employ APRS.

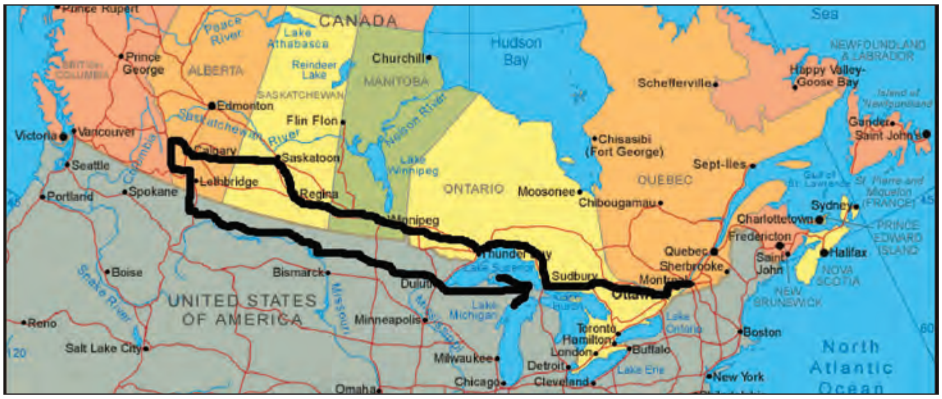
VHF/UHF COMMUNICATIONS

One of the challenges when travelling with your family is packing light; this had to apply to all communications equipment as well. Using this trip as an excuse, I decided to treat myself and purchased the Kenwood TM-D710A, my first ever brand new radio!

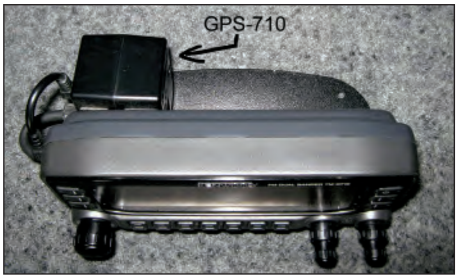
Since becoming an Amateur, I have always been very satisfied with secondhand gear. I chose this rig because it has a lot to offer in one small package (well, technically it comes in three small packages: body, head and microphone).

The TM-D710A is a dual-band transceiver with APRS capabilities, is EchoLink ready, includes pre-programmed weather frequencies, and has two separate VFOs which would be used to monitor local frequencies and beacon APRS simultaneously (or alternately could act as a crossband repeater).

APRS functionality would be possible thanks to the Green Lights Labs GPS-710. It is a very small plug-and-play GPS unit for the Kenwood TM-D710 (or RC-D710) radios. It is installed in back of the head unit of the rig. It is noteworthy to mention here that with the appropriate cables,



Our planned circuit covered over 8,000 kilometres.



The GPS-710 is a small GPS unit that is installed in back of the head unit of the TM-D710A.

any GPS with NMEA 0183 format can be substituted for the GSP-710, with the same results. I also used a Garmin Nuvi 360 for visual GPS navigation. I bought it secondhand via the Ontario Swap Shop for $40. I decided not to connect the Nuvi 360 to the APRS system – with dedicated cables, doing so would have allowed for visual display of any APRS signal received on the GPS' screen.

The TM-D710A was powered through a West Mountain Radio ISOPWR and RigRunner 4004-USB. The ISOPWR has many advantages when it comes to mobile operation: it isolates the equipment from the vehicle's power source; it can charge a 12 VDC auxiliary battery to run mobile radios and other 12 VDC portable equipment when the vehicle's engines are turned off; it turns on when the car is running and the alternator is maintaining the car battery over 13.5 volts, and turns off when the alternator is off and the car's battery has fallen below 12.7 volts, and therefore it may be used without an auxiliary battery to automatically turn a radio on whenever the vehicle is running (see the diagram at the bottom of the page).

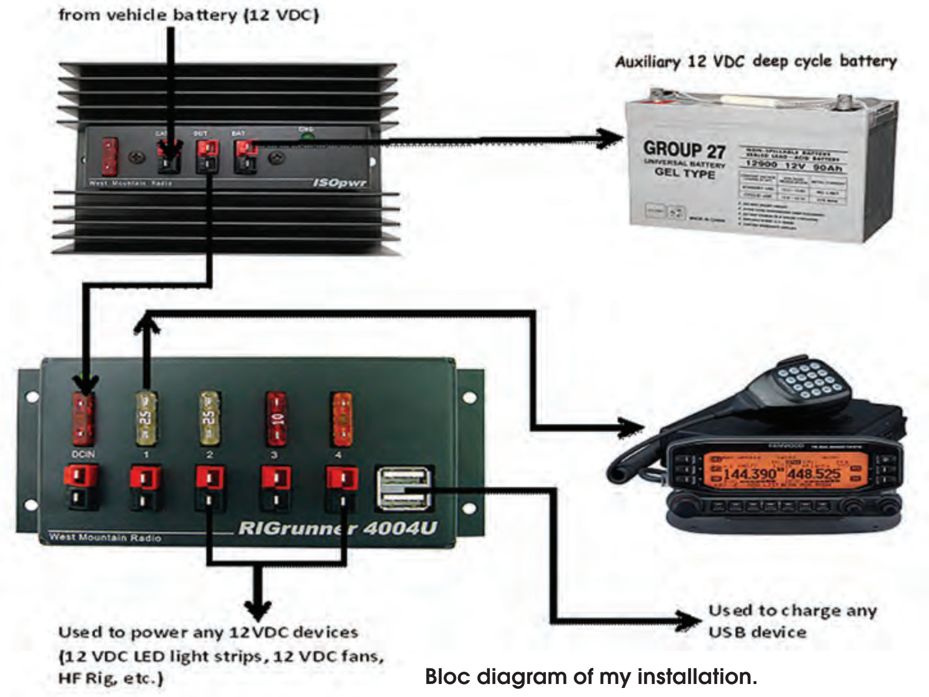
The RIGrunner 4004U lets you connect all your 12 VDC equipment to a single power source.

It is a 13.8 VDC power panel that uses Anderson Powerpole connectors that can deliver up to 40 amps total through four outlets and includes dual USB sockets for charging certain portable devices.

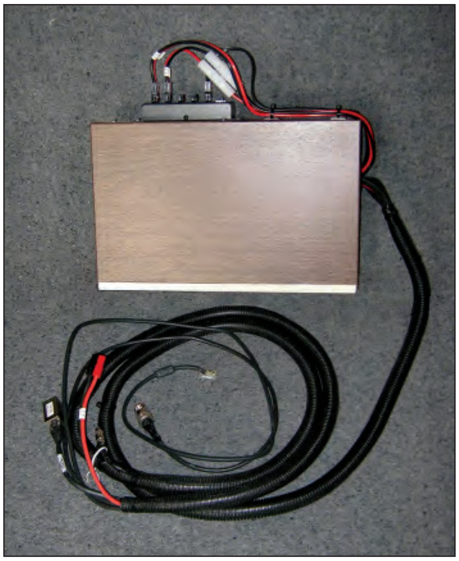
The USB feature was particularly interesting to me because the harmonics love to travel with their MP3 players.

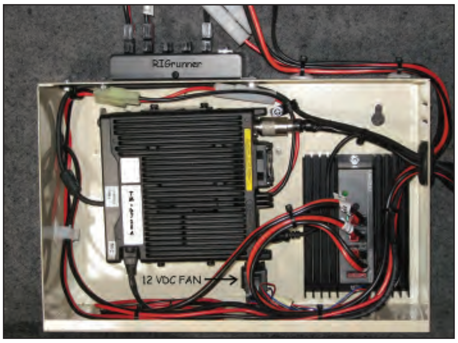
These small portable devices help keep the kids entertained during the longer legs of the trip.

The RIGrunner 4004U would also be used to power other 12 VDC devices: LED light strips (used in lieu of the camper's traditional lighting to extend battery life); circulating fans; HF rig; and more. In retrospect, this was a great purchase.


from vehicle battery (12 VDC)
Auxiliary 12 VDC deep cycle battery
GROUP 27
GEL TYPE
12900 12V 90Ah
West Mountain Radio
ISOpwr
DCIN
1
2
3
4
25
25
10
RIGrunner 4004U
West Mountain Radio
144.390 448.525
Used to power any 12VDC devices
(12 VDC LED light strips, 12 VDC fans, HF Rig, etc.)
Used to charge any USB device

Bloc diagram of my installation.





The entire RIGrunner 4004U kit is compact and secure. It can be installed or removed in a matter of seconds.

To ensure extra protection, the body of the radio and the ISOPWR were affixed inside a metal enclosure (13-1/2" x 9" x 4-1/2") rescued from an old emergency lighting assembly.

A small 12 VDC fan was installed within the enclosure to provide positive air pressure, therefore ensuring no infiltration of dust during travel. The RigRunner 4004U power panel was positioned on the outside-top of the enclosure for ease of access. The completed unit was then placed out of sight behind the driver's seat of the RV alongside a 90 Ah 12 VDC AGM battery. Cables were covered with plastic loom and routed under the driver's seat to the front console. When not in use, the entire assembly can be removed from the vehicle within a matter of seconds.

Because the speaker and the microphone jack of the TM-D710 are on the body (vs the head) of the radio, it was necessary to make a few simple and inexpensive modifications. A standard 6-foot CAT-5 Ethernet extension cable and female-to-female Ethernet connector were used to lengthen the microphone cable. I also installed a three-inch external audio speaker, which I positioned on the RV's console next to the head of the transceiver.

The VHF/UHF antenna I use is a Diamond Comet R-5100 magnet mount antenna, positioned on the hood of the engine compartment, on the opposite side from the AM/FM radio's antenna – not a perfect location but it works well.

THE OTTAWA AMATEUR RADIO CLUB PRESENTS
THE 2013 OTTAWA (CARP) HAMFEST

SATURDAY, SEPTEMBER 7, 2013
(The week after the Labour Day Weekend)
Tailgaters Open and Building Vendor setup: 7:30 am
Fleamarket Building Open: 9 am until 12 noon

OTTAWA AMATEUR RADIO CLUB

CARP AGRICULTURAL FAIRGROUNDS
W Erskine Johnston Arena
3832 Carp Road, Ottawa (Carp), Ontario

*From Ottawa take Highway 417 West to Carp Road exit #144,
10 kilometres North to the fairgrounds.
We are in the W. Erskine Johnson Arena – follow the signs.*

$6 general admission
$12/table (plus admission) until August 1 *
$5/tailgate (plus admission)
* **Note:** after August 1, $15/table (plus admission)

Ham licence exams on site – get yours or upgrade!

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FLEAMARKET AND HAMFEST

MANY HAM RADIO RETAILERS!
MAJOR DOORPRIZE DRAWS!

RAC

For further information or reservations contact:
Ed Sich, VE3WGO
Email: fleamarket@oarc.net
Website: http://www.oarc.net/fleamarket
Talk-in on VE2CRA, 146.94–

HF COMMUNICATIONS

I wanted to have HF capability while travelling, of course. We were going to spend about 10 days in Alberta's Rocky Mountains at an altitude of 1,350 metres or 4,500 feet – need I say more? I wanted a unit that was small, portable, reliable and that I could later use for emergency communications, Field Days and various other outdoor activities.

My good friend John, VE2EQL, introduced me to Ron, WB3AAL, a fellow QRPer who was selling a Kenwood TS-50/AT-50 (transceiver and tuner pair) that had previously belonged to his father. Despite its compact size, this rig has everything. Output is adjustable to 10, 50 or 100 watts. Naturally, it supports LSB, USB, CW, AM and FM, and has many standard features found on the bigger HF rigs. It was exactly what I was looking for!

I did not want to jeopardize our safety by operating HF while driving. My wife does not drive the RV, nor is she an Amateur and therefore it was decided that, unlike the VHF/UHF equipment, the HF rig would be deployed only when necessary. This would permit operation in various locations, either inside or outside the RV. The HF radio, its tuner, cables and accessories all fit very nicely in a padded computer bag, which would be safely stored when not in use.

HF antenna systems would vary depending on the situation. I planned to alternate between a set of five HF Hamsticks (10-15-20-40-80) and a simple homebrew 20-metre wire dipole, which tunes with relative ease on 10-20-40 metres. Please note that only one Hamstick is used for each band, therefore careful consideration should be taken when selecting the mounting location. The position I chose for the HF antenna mount was at the rear of the RV on the metal roof rack, very close to the roof access ladder, to ensure safe accessibility.

OTHER EQUIPMENT

I also added a VHF/UHF handy-talkie (Wouxun KG-UVD1P) and a handheld frequency scanner (Uniden BC72XLT).

A set of four Family Radio Service walkie-talkies (Cobra CXT 235) were also included to round out the communications package. These light, rugged and inexpensive FRS radios would provide an effective way to communicate with each other. As an added benefit, the harmonics could be *let loose* at most destinations, giving them freedom and autonomy – and a bit of peace and quiet for mum and dad! Walkie-Talkies are an excellent way to introduce kids to the hobby of Amateur Radio. I use them to teach the harmonics proper radio technique and etiquette. I highly recommend them.

Other things to consider before departure would include regularly scheduled RV maintenance and mechanical tune-up, systems safety checks (propane, electrical, fridge, stove), medical insurance for the family, vaccinations for the dogs – and let's not forget bug repellent and sun protection! As an added precaution, I made sure my CAA membership was up to date. CAA would provide immediate roadside assistance in case of mechanical failure. They also supplied us with road maps and detailed itineraries of the entire route before our departure.

Finally, the date had arrived. Over the next 32 days we would have the opportunity to visit five Canadian provinces, five US states, cover more than 8,000 kilometres, visit 48 different locations, see old friends and make many new ones along the way.

– continued on page 20

— NOTICE —

RADIO AMATEURS OF CANADA INC.

The Radio Amateurs of Canada is pleased to hold its Annual General Meeting (AGM) in Ancaster (Hamilton), Ontario. The AGM event will be hosted by the Hamilton Amateur Radio Club (HARC) and will be held in conjunction with the Hamilton ARC Hamfest 2013 which is being held at the same location. All RAC members are encouraged to attend the Annual General Meeting.

Date: Saturday, October 5, 2013.

Time: 1 pm

Place: The Annual General Meeting will be held in Marritt Hall at the Ancaster Fair Grounds at 630 Trinity Road at the southwest corner of highways #52 and #53, just west of Ancaster, Ontario.

Agenda items will include:

- Report of the President
- Review of the 2012 finances
- Appointment of auditors for 2013
- Amendment to RAC Constitution (see column at right)
- Question and Answer period

This is your opportunity to hear what your representatives have been doing over the past year, to raise questions, and to make suggestions about how RAC is managed and where it is going in the future.

The meeting will be attended by some of the members of the RAC Board of Directors and Executive and is open to all RAC members. In addition there will be a planned Webinar which RAC members can attend remotely.

For more information on the Hamilton ARC Hamfest please see the article below or visit the Hamilton ARC website at http://www.hamiltonarc.ca.

HAMILTON AMATEUR RADIO CLUB HAMFEST 2013

The Hamilton Amateur Radio Club is pleased to host the Annual General Meeting of Radio Amateurs of Canada as part of its annual Amateur Radio, Computer and Electronics Fleamarket.

The HARC Hamfest will be held on **Saturday, October 5**.

Place: The Concession Building at the Ancaster Fair Grounds,
630 Trinity Road, Ancaster, L0R 1R0 at the southwest corner of
highways #52 and #53, just west of Ancaster, Ontario.
Latitude 43° 11' 25" N Longitude 80° 02' 32" W

Time: Vendors 7 am; Public 9 am.

Cost: General Admission: $7 per person. Vendor admission $7 per person. All tables are $10 each (regular 8-foot table). Tables are reserved upon receipt of payment on a first come basis. Please book in advance to avoid disappointment.

Talkin on repeater VE3NCF 146.76 (-) tone 131.8 or 444.075 (-) tone 131.8.

For more information please contact Fleamarket Chairman John Boswell, VA3BOZ, at <va3boz@hamiltonarc.ca> or at 905-227-0155 or Vendor Liaison Mardy Eedson, VE3QEE at <ve3qee@hamiltonarc.ca> or at 905-648-0187.

Please visit the Hamilton ARC website at http://www.hamiltonarc.ca for a flyer and a map and to download a registration form. For additional information about the Hamfest please see the Coming Events section on pages 62-63.

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— NOTICE —

PROPOSED AMENDMENTS TO THE RAC CONSTITUTION

A Board meeting was held on February 17, 2013 in Ottawa with all the RAC Directors present. At the meeting the RAC Directors unanimously passed a motion recommending to the Annual General Meeting the following:

That the constitution of the Radio Amateurs of Canada (as approved by the Minister in November, 2010) be modified as follows:

SECTION 8. OFFICERS

Article 10 – Removal

a) That the RAC President can terminate any Executive member with an appeal process to the RAC Board. The appeal by the impacted party must be filed with the Board by no later than the second next scheduled Board Meeting.

b) Any Executive officer may be removed from office at any time by a simple majority vote of the Board, which may then appoint a successor to fill the unexpired term.

However, before the RAC Constitution can be modified by this motion it is necessary for the RAC membership to approve and vote on such motion at an Annual General Meeting (AGM) duly called.

The next RAC AGM will be held in conjunction with the Hamilton ARC Hamfest 2013 in Ancaster, Ontario on Saturday, October 5, 2013.

At the AGM RAC members who are in attendance will be invited to vote on and give final approval to the motion provided above.

I look forward to your attendance.

Geoff Bawden, VE4BAW
President – Radio Amateurs of Canada

— AVIS —

PROPOSITION D’AMANDEMENTS A LA CONSTITUTION DE RAC

Une réunion du Conseil d’administration a eu lieu le17 février 2013 à Ottawa à laquelle tous les directeurs de RAC ont participé. Au cours de la réunion, tous les directeurs de RAC, unanimement, ont adopté une résolution demandant à l’Assemblée annuelle de se pencher sur le projet de résolution suivant :

Que la constitution de Radio Amateurs du Canada (tel qu’approuvée par le ministre en novembre 2010) soit modifiée comme suit :

SECTION 8. OFFICIERS

Article 10 – Révocation

a) Que le président de RAC puisse mettre fin au mandat d’un membre de l’Exécutif avec possibilité d’appel devant le Conseil d’administration de RAC. L’appel par la partie touchée doit être logé auprès du Conseil d’administration au plus tard pour la deuxième réunion dûment prévue.

b) Tout membre de l’Exécutif peut être démis de ses fonctions en tout temps à la majorité simple des votes du Conseil d’administration, lequel peut nommer un successeur pour compléter le mandat.

Cependant, tant que la constitution de RAC n’aura pas été modifiée par la présente motion, il est nécessaire que ce soit les membres de RAC qui approuvent et votent une telle motion à une Assemblée générale annuelle (AGM) dûment convoquée.

La prochaine Assemblée générale annuelle (AGM) de RAC sera tenue conjointement avec le hamfest 2013 du Hamilton ARC à Ancaster, Ontario, le samedi 5 octobre 2013.

Les membres présents à l’AGM de RAC seront invités à voter et à approuver en dernière instance la motion ci-devant proposée.

Je compte sur votre participation.

Geoff Bawden, VE4BAW
Président
Radio Amateurs du Canada

– Traduction par Claude Lalande, VE2LCF

— AVIS —

RADIO AMATEURS DU CANADA INC.

Radio Amateurs du Canada est heureux de tenir son Assemblée générale annuelle (AGM) à Ancaster (Hamilton), Ontario. L’hôte de l’AGM est le Hamilton Amateur Radio Club (HARC). Il agira en collaboration avec le Hamilton ARC dont le Hamfest de 2013 se tiendra au même endroit. Tous les membres de RAC sont invités à participer à l’Assemblée générale annuelle.

Date : Samedi le 5 octobre 2013.

Heure : 13 heures

Lieu : l’Assemblée générale annuelle se tiendra au Marritt Hall du Ancaster Fair Grounds, situé au 630 Trinity Road à l’angle sud-ouest des autoroutes 52 et 53, légèrement à l’ouest de Ancaster, Ontario.

L’ordre du jour sera comme suit :

- Le rapport du président
- La revue des états financiers de 2012
- La nomination du vérificateur pour 2013
- Amendements à la constitution de RAC (voir la colonne à gauche)
- Période de questions et de réponses

Voici votre chance d’entendre vos représentants vous dire ce qu’ils ont accompli au cours de l’année dernière, poser des questions, faire des suggestions sur la gestion de RAC et connaître ses intentions futures.

Plusieurs membres du Conseil d’administration et de l’Exécutif de RAC participeront à l’assemblée, à laquelle tous les membres de RAC sont bienvenus. De plus, des membres de RAC pourront participer à l’assemblée à distance au moyen d’un Webinar prévu à cet effet.

Pour plus d’informations sur le hamfest du Hamilton ARC, voir l’article ci-dessous ou visiter le site web du Hamilton ARC à : http://www.hamiltonarc.ca

LE HAMFEST 2013 DU HAMILTON AMATEUR RADIO CLUB

Le Hamilton Amateur Radio Club est heureux d’être l’hôte de l’Assemblée générale annuelle de Radio Amateurs du Canada et d’y organiser simultanément son « Amateur Radio, Computer and Electronics Fleamarket » annuel.

L’hamfest de l’HARC aura lieu le **samedi 5 octobre**.

Lieu : le « Concession Building » du Ancaster Fair Grounds, 630 Trinity Road, Ancaster, L0R 1R0, situé à l’angle sud-ouest des autoroutes 52 et 53, juste à l’ouest d’Ancaster, Ontario. Latitude 43° 11’ 25” Nord ; Longitude 80° 02’ 32” Ouest

Heure : vendeurs 7h00 ; public 9h00.

Coût : admission générale : 7 $ par personne ; vendeurs : 7 $ par personne. Toutes les tables sont à 10 $ chacune (table régulière à 8 pattes). Les tables sont réservées sur réception du paiement, premier arrivé, premier servi. Veuillez s.v.p. réserver à l’avance pour éviter d’être déçu.

Utilisation du répéteur VE3NCF 146.76 (-) tonalité 131.8 ou 444.075 (-) tonalité 131.8.

Pour plus d’informations, communiquer avec le président organisateur du Fleamarket, John Boswell, VA3BOZ, à <va3boz@hamiltonarc.ca> ou à 905-227-0155 ou encore avec le préposé à la liaison avec les vendeurs, Mardy Eedson, VE3QEE à <ve3qee@hamiltonarc.ca> ou à 905-648-0187.

S.v.p., vous rendre sur le site du Hamilton ARC à http://www.hamiltonarc.ca pour tracer votre itinéraire ou pour télécharger le formulaire d’enregistrement. Pour plus d’informations au sujet du hamfest, voir la section « Évènements à venir » aux pages 62-63.

QUA – A TOPICAL DIGEST

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MORE ABOUT RG-6 CABLE

Discussion is still in progress on the problems arising from incorrect installation of F-connectors to RG-6 cable. Several participants on the Topband Reflector are or have been associated with the Cable TV industry and have waded in with their advice.

RG-6 is so widely used in Cable TV – and is so often discarded in what the industry regards as short lengths – it is obtainable by Radio Amateurs at very little cost. But you have to be careful how you install F-connectors. The shielding braid and foil being of aluminum, you can't solder it, so compression fitting is the norm.

The situation is complicated by the variety of shielding combinations – single, double, quad – and often the use of a metal-coated Mylar foil.

The latest round of discussion started with N4ZR reporting erratic R/Z values of a short length of RG-6 as displayed on an MFJ-259B meter, worsened when the cable was wiggled at the connector.

The ensuing responses to the question went back and forth, and I have done my best to clean out repetition.

I have left in some indication of the professional experience of the authors of the postings, and you can use this to decide how valid you consider the advice to be. Most of it is verbatim, some is paraphrased. I have not always tried to insert quotation marks, but as usual, I remind you that I just pass these things on from selected sources.

So here goes…

First, this was the question from N4ZR:

"I'm having a repeated weird problem with compression F connectors on quad-shield RG-6. When I connect a short length (say 4 feet) of cable to my MFJ-259B, I would expect R>650. Instead, when I wiggle the coax, occasionally I see the display change to R=0 and X= several hundred ohms at 1.8 MHz. This makes no sense to me – the R implies a short, but where's all the X coming from?"

The first response was from W8JI:

"R doesn't come from a short, it comes from no loss resistance, or more correctly very low loss resistance. It sounds like the connector you have is not contacting all the shields. This is typical for mismatched connectors and cable, or improperly manufactured cables. It could be somewhere else also, but I've seen this before with quad shield.

Remember how RF current flows. It flows on the outside of cables, unless it has a connection path to the inner shield. If you have cable with Mylar on the inside of one or more shield layers, and a connector that only contacts the outside of the outer shield, the inner shields that carry nearly all of the desired transmission line currents will be insulated and isolated from the shield at the connector. Every shield has to be contacted at the connector, or at least the inner shield does.

This might not be it, but it is a common issue with quad shield. Dual shield is much more forgiving of connectors. You'll never detect the leakage in dual shield in outside runs. If you have nasty common mode problems, a thicker shield will help. It is also just as simple to add a few dozen or a few hundred ohms of common mode choking to regular dual shield cables and knock down CM ingress to levels that cannot be noticed.

BNC's are worse [than F connectors] , as a general rule. They rely on spring pressure for the shield path. Look into a type match error between the cable you have and the connectors, or a connector installation error."

W8ZR commented:

There are different compression F connectors for ordinary RG-6 and for quad-shield RG-6.
I use 'Ideal' brand connectors with matching compression tool, and there is a colour-coded band for the two types of cables (blue for RG-6 and black for quad-shield). It is not always easy to find the installation instructions, but for quad shield especially, it is very important to follow the directions so as to make sure the multiple aluminum foil and braided shields make appropriate contact at the connector.

The 'Ideal' blue-banded connectors for RG-6 are part number #89-055, and the black-banded ones for quad shield are #89-056. They both use compression tool #30-603. And another: I never have problems with F connectors. I buy quality Belden RG-6/U Quad Shield… as well as the right F connectors, and use a quality compression tool. There are several F connector sizes. The right one goes on the cable rather easily if it is stripped properly…."

And from W9RC:

"Belden has produced a 3 minute, 37 seconds video promoting their ProSNS line of Snap-N-Seal F connectors. Just run a search for 'Belden ProSNS'. A plastic guide tube helps to transition the prepared cable end into the connector. After full insertion, the guide tube pops out of the assembly and is discarded. That feature probably qualifies as one of those 'flash of genius' novelty ideas… Other YouTube videos show a similar braid flaring, especially when using quad-shield. But be suspicious of any information that does not come from the product's vendor. In quantities, these connectors are inexpensive enough to purchase from well-known industrial suppliers."

W8JI added:

"Be careful using any non-approved assembly method, or using improper connectors. Many cables (I'm not sure exactly what percentage, but I saw a lot of them) use aluminized Mylar to form the foil shield. You can usually see the Mylar on close inspection; it often is blue or a blue tint. This insulates one side of the foil.

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The shield that must have the best integrity at connectors is the shield just outside of the centre conductor. Nearly all shield current is on the inside of that shield. If you do not get a good solid connection to the INSIDE wall of that shield, the cable will have all sorts of issues. It doesn't matter how solid the outside shield connections are, because the innermost surface of the innermost shield does all of the real work.

The inner wall connection can be, and usually is, by conduction across the cut end of the shield. Say the inner shield is Mylar on the dielectric side, or bonded to the dielectric. The bare outside contacts the braid with pressure. The current just travels across the cut end edge (a very short path) to the inside of the inner shield.

If you do something to miss that good solid end connection to the inner foil edge, like folding a Mylar shield over so the blue side is out, the connection is by stray coupling over what can be a pretty long length of cable, adding many feet to the shield connection path. Or you might have no connection at all. Generally avoid quad shield, because the extra layers are unnecessary and can often cause connection problems. This is especially true outside with lightning and age.

While they do use tape foil shield cables, CATV systems rarely use quad shield cables. As a matter of fact I just bought a bunch of drop cable from a CATV system, and it is all single foil single braid. This is true for the drop, which has a messenger strand, and the house wiring, which is identical without a messenger strand.

And more from W8JI:

"In the late 70s and early 80s, I was a systems engineer at a company that had dozens of small cable systems. We inherited some systems near an FM/AM station that had a second harmonic on a local TV channel video frequency.

The former cable system operator had given up, after installing quad shield and all sorts of special cables. 100% of their problems were isolated power and CATV grounds, letting the AM signal loop through the system, and the quad shield developing poor connections letting the FM harmonic in. We ripped all that stuff out, and went with normal hardline and good quality drop cable, bonded the cable grounds to the entrance and breaker panels, and nearly 100% cured the system. We had a dumpster load of special cable that was nothing but connector headaches.

The Motorola SCR-536 was the first true handheld transceiver.

The standard drop cable is a bonded foil with single braid, it has been that way since the late 1970s. The current best grade is 'Brightwire' by CommScope. Any good cable will far exceed FCC specs without a quad shield.

Single-foil single-shield 'Brightwire' has over 120 dB of external shield current to centre conductor current isolation on 160 metres, and it gets better as you go up in frequency. I can't imagine anyone needing more than 80 dB isolation outside the house, and maybe 100 dB if it is in a noisy house. But if you feel you need quad cable, consider this: quad cable connector installation involves five specific steps, each performed carefully and correctly:

1) Use an RG-6 stripping tool to remove the jacket. Inspect the braid wires to be sure none of the wires are damaged. Never use a knife to remove the jacket; inevitably it will damage the fragile braid wires no matter how careful you are.

2) Carefully fold back only the outer braid and spread the braid wires evenly around the circumference of the cable jacket. Verify that no wires are broken. All of the braid wires should lay flat over the jacket, should not be more than a quarter-inch long, and should not be bunched up.

3) Remove the foil tape between the two braid shields. Do not use a knife to assist in foil tape removal. This step is time consuming and often ignored. The connector will be very difficult to install if the foil tape is not removed.

4) Carefully fold back the inner braid and spread the braid wires evenly around the circumference of the cable jacket. Verify that no wires are broken. All of the braid wires should lay flat over the jacket, should not be more than 1/4 inch long, and should not be bunched up.

5) Install the proper connector for quad shield cable. Be sure the connector is fully seated. If you need to use great force to mate the connector something is wrong. Either you used the wrong connector or the cable was improperly prepared. If somehow you manage to force the connector onto the cable, the connector will be intermittent and unreliable."

Improper connector installation is so pervasive in the cable TV industry that CommScope prepared an illustrated paper on improper connector installation: http://docs.commscope.com/Public/ImproperQuadPrep.pdf

RADIOS TO GO! Getting the most from your Handheld Transceiver

Written by Steve Ford, WB8IMY, and assisted by the ARRL publication staff, this book starts with the history of the term "HT" (short for "Handie Talkie", originally applied to the tube-equipped military SCR-536 and now a trademark jealously guarded by Motorola).

It goes on to discuss the things to consider when buying any handheld transceiver, single or multiband, especially the pros and cons of going for high power (5W or so) capability to receive signals outside the Amateur bands, whether analog or digital D-Star (for data).

Chapters are devoted to the care and feeding of batteries; to memories and common frequency offsets for the various bands; to programmed scanning; to CTCSS, DTMF and DCS; to IRLP and EchoLink; to antennas; to microphones and headsets; to sources of programming software; to APRS and satellites. Appendices cover bandplans for the bands from 28 MHz to 1300 MHz. ARRL #3077, US$17.95.

ARDUINO AND PICAXE

Ham Radio for Arduino and Picaxe, from the ARRL and edited by WA5ZNU, is an interesting guide to experimenting with single-board microprocessors, mostly the open-source Arduino devices and software, Picaxe and ATtiny. It is a collection of specific projects, all described and explained in detail. Each one is self-contained, but many could be used as the basis for the creation of something bigger.

There are data loggers (including a thermic logger for voltage, HF and high temperature), CW-sending devices (including AXEKEY), an APRS iGate, a solar tracker, a talk timer, a DTMF Controlled SSTV Camera, a spectrum Waterfall, an SWR Scanner, several appendices on Argent and Arduino products.

This is a book for the technically inclined, but there are many "getting started" references for readers not yet deep into construction. From ARRL Order #3244, and from sources of ARRL publications US$34.95.

MORSE CODE OPERATING FOR AMATEUR RADIO

Morse Code Operating for Amateur Radio is a smart little book written by K6RB and N3JT, which explains the reasons CW is useful, the basics of learning how to read and send Morse Code, how to operate using the mode and set up a station. It concludes with a history of Morse and its application to radio, and a summary of where it stands today. Excellent pictures of keys and paddles, manual and automatic, old and new, simple and sophisticated. ARRL #0004, US$17.95.

HANDS-ON RADIO EXPERIMENTS

ARRL's *Hands-On Radio Experiments Volume 2* is an anthology of 60 electronic experiments from N0AX's series in QST, grouped into categories, not by experiment number. It begins with fundamental ideas of basic electricity and its relationship to magnetism, and carries on with a series of experiments dealing with the use of computers to design, simulate and construct circuits, analog and digital. The theory relating to antennas and transmission lines is well covered, as are construction techniques.

Component descriptions and specifications are detailed for all the experiments, and a quick reference section includes even a drill and tap size chart (in 64ths). There is a good list of vendors of components and supplies, and technical and tutorial websites, specifications for semi-conductor diodes, FETs and transistors, logic ICs, voltage regulators, cable connectors, computer connector pin-outs. Nice to find all these in one place as an easily available reference. ARRL #3411, US$25.95.

ARRL 2012 PERIODICALS CD

The ARRL has released the annual CD that contains the complete text of the year's issues of QST, QEX and the National Contest Journal (NCJ) with high resolution display. It also has the source code for software projects and PC board patterns, Section News and Contest Soapbox and Results.

To make efficient use of it you need (for Windows) a Pentium processor or better, Win 2000, Vista, XP or Win 7, 520 MB of RAM, 3 GB of available hard disk and Adobe Reader (not included on the CD, but easily available).

For MacIntosh: PowerPC, MAC OS X (but some of the features may not be available), and similar RAM and HD to that required for PC. ARRL #3152, US$25.95

"Amateur Radio Will Travel", continued from page 15

So, was it all worth it? Let's find out...

The Kenwood VHF/UHF transceiver performed beyond my expectations. Pre-trip preparations had included programming the rig with the repeater frequencies we would find along our route. A simple task accomplished with the help of the ARRL Repeater Directory, MCP-2A Memory Control Program (included with the TM-D710A) and dedicated PG-5G programming cable from Kenwood. I was then able to quickly and safely tune in local repeaters, where most of my calls were answered by amicable Amateurs who supplied plenty of good advice and friendly banter. Another feature of the TM-D710A that we found quite useful was the factory programmed weather frequencies, which provided us with daily up-to-the-minute weather reports at the push of a button.

While on the road, we would beacon APRS on 144.390 MHz and monitor the general call frequency of 146.520 MHz. APRS real-time tracking worked very well when traveling in urban areas, thanks to the various digipeaters found in and around cities. However, we were unable to be tracked via the Web when in rural settings and far from any digipeater. This did not prevent our signal from being received by other Amateurs with APRS capabilities. Unfortunately, I received no unsolicited calls on the general call frequency, despite the homebrew sign I had placed in the rear window of our RV: "VE2XPL – Monitoring 146.520 MHz".

The VHF/UHF handy-talkie proved very useful in accessing local repeaters when we were away from the RV. I was able to monitor the local repeater on one VFO, while listening out for the kids walkie-talkies on the second VFO because I had programed all the FRS frequencies into the KG-UVD1P's memory before the trip.

The set of five HF Hamsticks performed quite well, but could have benefited from a better ground plane – either by improving the bonding between the various metal surfaces of the RV, and/or by making a simple clamp-on ground plane using lengths of copper wire. The 20-metre dipole performed best, especially at altitude in the Rocky Mountains. Beware of electrical power lines as they seem to interfere with your signal when operating too close to them – a lesson I learned the hard way!

Nearing the end of our journey, I called for information on the general call frequency of 146.520 MHz. We were in Marquette, Michigan, seeking directions to the Escanaba Hamfest which was taking place the very next day. What a pleasant surprise to be greeted by my friend Mike, KE8IL, with whom I had previously had several QSOs on EchoLink. I was very pleased to chat with him and he was able to help us locate the event. At the Hamfest, I met several other Amateurs with whom I had prior contact including Dave, KC8QZG, host of the Upper Peninsula EchoLink Net (held every Sunday at 8 pm Eastern, on the *Michigan* Conference Server, node 96170). Please check in and say "hello" sometime; it's an excellent net. The Escanaba Hamfest was a great end to our adventure, especially since I only spent a few dollars there – how I managed that I have no idea!

Future plans include adding a small laptop, which will not only allow us to keep in touch with friends via email, EchoLink and Skype, but also give me the opportunity to play with various digital modes such as PSK31 and satellite tracking.

When all was said and done, everybody had a great time. A wonderful family adventure made better thanks to the many facets of Amateur Radio. As I write these words, we already look forward to this summer's escapades to Eastern Canada and Northern New England. If you wish to follow us on APRS, please visit: http://www.aprs.fi/ve2xpl-13

Please contact me should you have any questions or comments.

73 and safe travels!

Pete Landry, VE2XPL, spent much of his youth taking apart and rebuilding telecommunications equipment brought home by his mother, who worked for Northern Telecom. Licensed in 1995, his Amateur Radio interests include homebrewing, digital modes, and QRP operation away from the shack. Pete also enjoys guitar, photography and outdoor activities. He lives in suburban Montreal with his wife Sharon, his daughters Isabelle and Meagan, and their two dogs. He works as an engineering technologist at Sainte-Justine Children's Hospital. In his spare time he is co-host of the Linux in the Ham Shack podcast. He can be reached at ve2xpl@rac.ca.

TCA

CALL FOR NOMINATIONS / MISE EN NOMINATION

THE CANADIAN AMATEUR RADIO HALL OF FAME

Any resident of Canada who holds a current Amateur Radio Operator Certificate issued by the Government of Canada, or any Canadian Amateur Radio organization, other than Radio Amateurs of Canada, may submit a nomination for Member of the Canadian Amateur Radio Hall of Fame. Membership in RAC is not mandatory.

Any resident of Canada who holds a current Amateur Radio Operator Certificate issued by the Government of Canada, except a Radio Amateurs of Canada employee, officer, Director, Assistant Director, volunteer manager, or leadership official in the Field Organization, may be appointed as a Member of the Hall. Membership in RAC is not mandatory. Any eligible person may receive an appointment as Member of the Hall for outstanding achievement and excellence of the highest degree, for serious and sustained service to Amateur Radio in Canada, or to Amateur Radio at large.

Nomination or appointment for Member or Honorary Member of the Hall may be after the death of the nominee.

A person who is not a resident of Canada may be appointed only as an Honorary Member of the Hall. The other requirements for appointment as Honorary Member of the Hall are the same as for Member.

Only the RAC Board of Directors, by majority vote, is allowed to nominate candidates for Honorary Member (those persons not residents of Canada). Because of the requirement for Canadian residency for appointment as Member of the Hall, it is incumbent upon the nominator to confirm the Canadian residency of a nominee prior to submitting a nomination.

Nominations shall be submitted to the Board of Trustees using the Canadian Amateur Radio Hall of Fame Nomination Form which is available on request from RAC Headquarters or for download from the RAC website at http://www.rac.ca/en/rac/programmes/hall-of-fame/nominations.php. All nominations shall include a biographical sketch or curriculum vitae. Three references shall be included for Member of the Hall.

All nominations for Member of the Canadian Amateur Radio Hall of Fame must be received at RAC Headquarters by the close of the last business day of September.

Late nominations will be considered in the next year.
Once received, all handling shall be conducted in a secure and confidential manner. On or before the last business day of November, the Chair of the Board of Trustees for the Hall of Fame shall advise the Custodian (RAC) of the decisions of the Board of Trustees on appointments for the calendar year.

The Board may appoint a person who has been nominated in a previous year. For this reason, no advice shall be issued to the nominator that the nomination has not resulted in an appointment, nor any reason given why an appointment has not been made as a result of that nomination.

TEMPLE DE LA RENOMMÉE DES RADIOAMATEURS CANADIENS

Tout résident du Canada qui détient un certificat régulier de radioamateur émis par le gouvernement du Canada, ou toute organisation radioamateure canadienne autre que Radio Amateurs of/du Canada, peut proposer une candidature au titre de membre du Temple de la Renommée des Radioamateurs Canadiens. Être membre de RAC n'est pas obligatoire.

Tout résident du Canada qui détient un certificat régulier de radioamateur émis par le gouvernement du Canada, sauf un employé de Radio Amateurs of/du Canada, dirigeant, directeur, assistant directeur, gestionnaire bénévole ou chef attitré dans l'Organisation sur le terrain, peut être choisi comme membre du Temple de la renommée. Être membre de RAC n'est pas obligatoire. Toute personne éligible peut être admise au Temple de la renommée pour réalisations hors du commun et de haut niveau relativement à son engagement sincère et soutenu envers le radioamateurisme canadien, ou le radioamateurisme en général.

La mise en nomination ou le choix d'un membre régulier ou honoraire au Temple de la renommée est possible à titre posthume.

Une personne qui ne réside pas au Canada peut devenir membre du Temple de la renommée à titre honoraire seulement. Les autres prérequis de mise en nomination honoraire sont similaires à ceux réservés au membre.

Seulement le Bureau des directeurs, majoritairement, est habilité à nominer un candidat honoraire ne résidant pas au Canada. En raison de l'obligation de résidence canadienne pour une nomination au titre de membre du Temple de la renommée, il est impératif pour celui qui nomine un candidat de s'assurer de sa résidence canadienne avant de présenter sa candidature.

Les mises en nomination devront être présentées au Conseil d'administration du concours (Board of Trustees) au moyen du formulaire "Canadian Amateur Radio Hall of Fame" disponible sur demande au siège social de RAC. Le formulaire peut être téléchargé à partir du site web de RAC à http://www.rac.ca/en/rac/programmes/hall-of-fame/nominations.php. Toute nomination doit inclure un résumé biographique ou un curriculum vitae (CV) du candidat. Trois références doivent accompagner le formulaire de mise en candidature.

Toute mise en nomination au Temple de la Renommée des Radioamateurs Canadiens doit arriver au siège social de RAC avant la fin du dernier jour ouvrable de septembre.

Les mises en nomination retardataires seront prises en compte l'année suivante. Une fois reçue, la mise en nomination sera traiter de façon sécuritaire et confidentielle. Le ou avant le dernier jour ouvrable de novembre, le président du Conseil d'administration du Temple de la renommée avise le responsable (RAC) de la décision du Conseil relativement aux mises en nomination de l'année.

Le Conseil peut nommer une personne nominée l'année précédente. Pour cette raison, aucun avis ne sera fourni au proposeur lui indiquant que la mise en nomination est demeurée sans résultat, ni tout autre raison indiquant le non choix du candidat.

CALL FOR NOMINATIONS: RAC AMATEUR OF THE YEAR AWARD

To qualify for the title "Amateur of the Year", an individual should have made an outstanding contribution to Amateur Radio in the past year, or have contributed consistently to the welfare of Amateur Radio over several years. RAC Directors, Officers and Section Managers are not eligible for the award while in office, and not in respect to their term(s) of office.

Nominations with supporting documentation are to be addressed to the Secretary, RAC, and received at RAC Headquarters by the close of the last business day of September, for consideration for the current year.

Selection of the winning candidate will be by majority vote of the RAC Board of Directors based on the supporting documentation submitted with the nomination.

The winning candidate will be notified by mail.

Due recognition will appear in *The Canadian Amateur* and a suitable plaque will be presented at an appropriate time and place.

MISE EN NOMINATION : PRIX AMATEUR DE L'ANNÉE DE RAC

Pour se qualifier au titre «Amateur de l'année », une personne doit avoir fourni une contribution hors du commun à la cause radioamateure au cours de l'année qui se termine, ou avoir travaillé substantiellement au bien-être du radioamateurisme depuis plusieurs années. Les directeurs de RAC, dirigeants et gérants de section ne sont pas éligibles au Prix aussi longtemps qu'ils sont en fonction, et sans considération quant à leur(s) mandat(s).

Les mises en nomination, documentées, doivent être envoyées au secrétaire de RAC de manière à ce qu'elles parviennent au siège social de RAC au plus tard à la fin du dernier jour ouvrable du mois de septembre pour être prises en considération la même année.

Le choix du candidat gagnant est effectué à la majorité des membres du Bureau des directeurs, basé sur la documentation accompagnant la mise en nomination.

Le candidat gagnant est avisé par la poste.

The Canadian Amateur (TCA) publiera un texte de félicitation et une plaque sera remise au récipiendaire en temps et lieu appropriés.

RAC AT DAYTON 2013

Radio Amateurs of Canada was once again at the Dayton Hamvention.

This was the third year in a row in recent times that RAC waved the Canadian Flag for all to see.

In addition to the ARRL – which had a mammoth display that included a large bookselling area – the other IARU member societies represented included the Radio Society of Great Britain (RSGB) and the Qatar Amateur Radio Society as well as a delegation from Japan, Germany and Curaçao. Overall, the attendance was about 25,000 to the three-day event.

RAC Radio Amateurs of / du Canada

The RAC booth and display was a magnet for Canadian Amateurs to stop by, say hello and sign the Guest Book. Over 125 Canadian Amateurs said hello while others took the opportunity to renew their membership. Those who did renew got a Tim Horton's Card as a reward. And everyone received a Canadian Flag pin or other souvenir.

Many American and other foreign Amateurs stopped by the RAC booth as well. Of particular interest to some US hams was receiving answers to questions about reciprocal operating privileges while visiting Canada, and even what's involved in obtaining a Canadian Amateur certificate and call sign. Indeed, several American hams signed up to be a member of RAC while at the RAC booth.

With the Radio Amateurs of Canada booth at Dayton as a backdrop, RAC President Geoff Bawden, VE4BAW, took the opportunity to present Scott Wood, VE1QD (who was attending the Hamvention) with the Canadian Radio Amateur of the Year Award for 2012 (see page 9). Scott has provided an outstanding contribution to Amateur Radio over his 60 years as an Amateur and in recent times has become renowned for hosting and organizing the annual Maritime DX Forum. Congratulations Scott!

Following the IARU Meet & Greet affair on Saturday evening, many of the Radio Amateurs of Canada delegation to Dayton had a nice dinner at the Barnsider Restaurant. A good time was had by all.

Thanks to everyone who attended and worked the RAC booth at Dayton including: Geoff Bawden, VE4BAW, Ian MacFarquhar, VE9IM, Bill Unger, VE3XT, Mitch Mitchell, VE6OH, Frank Greene (RAC office coordinator), Barry Allison, VE3NJK, Glenn MacDonell, VE3XRA, Richard Ferch, VE3KI and Norm Rashleigh, VE3LC.

The photos show the RAC booth and RAC President Geoff Bawden, VE4BAW, meeting with two Amateurs from Curaçao.

RANDOM THOUGHTS

A GOOD START TO THIS YEAR'S DX MOBILE HUNT IN THE YUKON!

Dirk Moraal, VY1NM
Box 75
Tagish, YT Y0B 1T0

It was one of those wonderful sunny mornings in early spring with a blue sky and wispy clouds overhead, with perhaps just a hint of breeze to remind me that it was still winter here North of 60, and would be for another two months.

There remained two or three feet of snow on the ground, depending on where the wind had drifted it, and the more vertical faces were reflecting light and heat.

The minivan was facing south and the sunlight entering through the windscreen was giving the interior a sleepy warmth.

I had just replaced the car battery, not because it was tired, but to be sure I had lots of power to play radio.

The rig had spent the winter in the warmer climate of the cabin, as snowbirds do, only without the hassle of airline travel.

And once the wires were all hooked up, there was nothing for it but to try it out. It was all very cozy.

Twenty metre(20m) activity on SSB was pedestrian, and Hell promised no joy. Digital modes were quiet except for BPSK31, and most of that was zone 2 and 6, with heavy QSB.

I then checked SSTV, and soon an ON and an EA appeared, with weak signals. But, good things come at the most unexpected times and today was no exception. Half dozing off in the heat, marking time on SSTV, I happened to notice a CQ SSTV from a Russian station appear on the screen of the little computer I use with the mobile rig, so out of idle curiosity, not expecting much, I answered it.

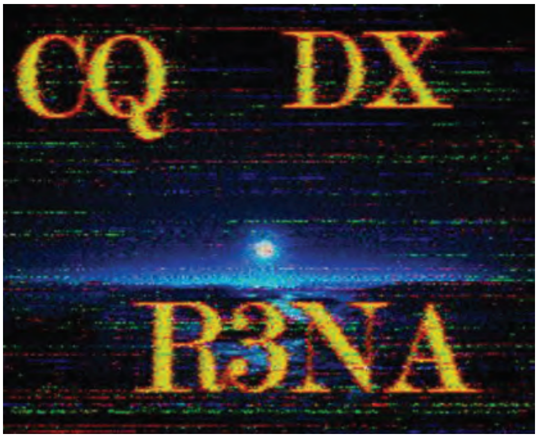
I never cease to be amazed and gratified by the performance of mobiles.

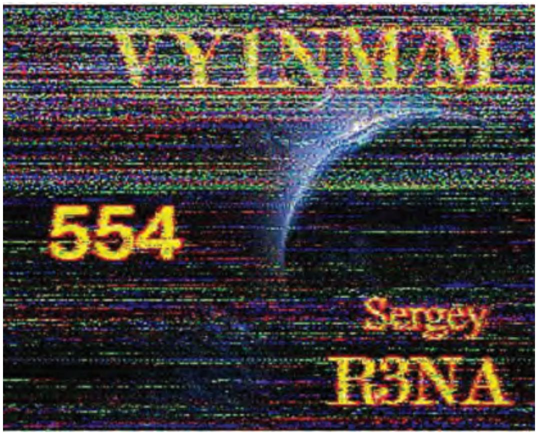
For a while there were several stations calling each other over Sergey, R3NA, and I was about to call it a miss when a strong signal squawked from the speakers and I looked back at the screen. Sergey was persistent. He must have been swinging his beam my way.

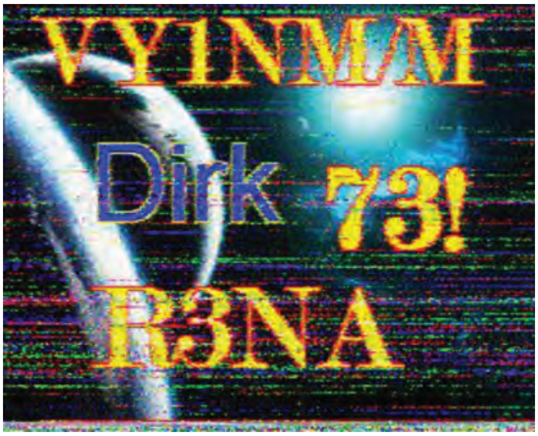
At first I did not recognize my own call sign, such was my mindset, but lucky me, I had not QSY'd. (I am a competent procrastinator so I had thought, oh, *mañana.*) Good thing. You can't imagine the satisfaction you can get from seeing your own call sign starting to appear on the image forming on your screen, when it comes from genuine DX, answering your few watts radiated (Mobile!) from less than a metre of wire antenna. Sergey's SSTV pictures were artistic astronomical images, backlit planets in deep blue black space… but he has others. Mine by comparison are prosaic: a coffee cup (half full, mind you!), a gopher, and a round cracker. A bit of disparity there, but I expect we both were equally gratified by the exchange.

Kostroma, where Sergei's station is located, is in northwest Russia some 280 kilometres north-northeast of Moscow, and 560 kilometres south of Arkhangel'sk, the historic port at the edge of the White Sea.

Kostroma is 6,863 kilometres from my QTH at Tagish, Yukon if you go direct, over the pole, and is reasonably near the same latitude, being 58°N, while Tagish sits at 60°17'. Part of the fun of rare DX is finding out where it originated from and my old atlas has the smudges to prove it.







It is a good start to this season's DX SSTV Mobile hunt.

With many months yet to come, I wonder what other surprises lay just beyond the dial setting.

INTERNATIONAL SPACE STATION COMMANDER CHRIS HADFIELD COVERS CANADA!

Maurice-André Vigneault, VE3VIG

It's not a Hollywood scenario, but a Canadian reality that has marked the ARISS program during NASA's Expedition #34/35 to space.

International Space Station (ISS) Commander Chris Hadfield, the first Canadian to command the ISS, accomplished a feat never done before: connecting Canadian students from coast to coast to coast from space via Amateur Radio. And it could not be done without the enthusiasm and the generosity of the Canadian Commander with regards to Amateur Radio in space and Youth Education here on Earth.

Chris has both a Canadian call sign (VA3OOG) and an American call sign (KC5RNJ), and he was willing to accommodate the schools on weekends when other astronauts do not commit to ARISS contacts on their free time.

Long before Colonel Hadfield's launch to space, the Canadian ARISS Team worked on recruiting at least one school in *every* province and territory so that students could have a chat with the Commander via Amateur Radio.

Despite equipment glitches and schedule rearrangements, we succeeded in accomplishing our common goal. This success was thanks to our ARISS Operations Team based in Ottawa, Lori and Steve McFarlane, VE3TBD; our East Coast mentor, Wayne Harasimovitch, VE1WPH; and our West Coast mentor, Brian Jackson, VE6JBJ. They toiled relentlessly to recruit schools and to keep the schedule on track, even travelling to the Arctic to set up contacts.

What follows is but an insight into the work that was required to complete the mission. Local Amateur Radio Clubs, School Staff, Teachers and Coordinators all provided a major effort to complete this outstanding project in their regions.

NOVA SCOTIA

The first contact was done from the Charles P. Allen High School in Bedford, near Halifax, and it involved about 1,250 students. The school submitted one of the best Educational Proposals to date. Their selection of students for the contact was "inclusive and cross-curricular", meaning that the entire school participated.

On the day of the contact, January 5, Marc Garneau (astronaut and Member of Parliament) gave a 20-minute presentation on life in space and he initiated the contact with Chris. It was a direct contact with radios and antennas at the school, which were provided by the Halifax Amateur Radio Club (HARC) under the guidance of Bill, VE1MR.

A special call sign, VE1CPA, was obtained for the newly formed Amateur Radio club at the school. Several questions were answered by Chris and soon the ISS lowered below the horizon, ending the contact with loud cheers for Chris from the group.

Federal, Provincial and Municipal dignitaries were present including Ramona Jennex, Nova Scotia Minister of Education, who was much interested in the ARISS program as a STEM tool (Science, Technology, Engineering, Mathematics). The event was streamed on the Internet by the CBC and schools across the nation could watch and listen to the contact: http://www.cbc.ca/news/technology/story/2013/01/05/ns-space-station-talk-bedford.html

Our East Coast ARISS Team Mentor, Wayne, VE1WPH, produced a large poster of Chris Hadfield in astronaut garb and he had students who participated in the contact sign the poster. This poster was to be forwarded to each school across the land that would complete a contact with Chris, and to have the students sign it.

Nova Scotia: courtesy of CBC News

Chris will also be invited to talk to the students in Bedford at a later time. The signed poster may be presented to Chris in the future at the Canada Aviation and Space Museum in Ottawa where they have a display of his ventures in space.

NEWFOUNDLAND

The second contact was done with the Newfoundland Royal Canadian Air Cadets Detachment in St John's on January 12. It took place at the Admiralty House Communications Museum at Mount Pearl and involved six squadrons in the immediate area.

The activity was streamed through the Internet for all the other squadrons in Newfoundland and Labrador. This was also a direct contact, which was supported by the Society of Newfoundland Radio Amateurs (SONRA) using the call sign VO1BZM.

Although this group is not a school, the ARISS program welcomes groups such as Cadets, Scouts and Guides, providing

Newfoundland: courtesy of the Society of Newfoundland Radio Amateurs (SONRA)
Photo by: Mike Pardy of MPphotoNL

New Brunswick

they can implement an Educational Proposal covering STEM subjects in order to interest youth in these career paths.

Several dignitaries attended the event and all the Cadets who talked with Chris signed the large poster that had been forwarded to their site.

NEW BRUNSWICK

On January 17, an ARISS contact was conducted from the Saint Rose Elementary School in Saint John. The school has an established science curriculum which includes a Space component and they expanded it to include topics on the space shuttle, satellites and the space station and its path.

In preparation for this educational event, students took part in Astronomy presentations, worked on Science connections, enjoyed a presentation by a Space Studies Professor, and experimented on space projects linked to curriculum outcomes. The Space projects led to the "Saint Rose School Space Walk" where students walked from classroom to classroom to observe, question and select projects to be highlighted. These activities culminated in the Science East Planetarium presentation in their gymnasium.

The contact was a direct contact coordinated by the Loyalist City ARC with Greg, VE9GFI, at the helm. The equipment included a Kenwood TS-2000 and a Yaesu FT-847, two fine satellite capable radios. The Loyalist City club used the call VE9LC for the contact.

Media coverage was total and a video of the event was produced for wide distribution. Students participating in the contact signed the Chris Hadfield poster and forwarded it to the next group.

ONTARIO

On February 8, we moved on to Toronto for a contact from the Hospital for Sick Children (SickKids).

We have been there before for previous contacts and it's a special time to see all those happy faces listening and talking to the "man in space".

SickKids is recognized as one of the world's foremost pediatric health care institutions and is Canada's leading centre dedicated to advancing children's health through the integration of patient care, research and education.

SickKids is proud of its vision of "Healthier Children. A Better World".

Our Ops Team, Lori and Steve McFarlane, VE3TBD, got everything set up for a telebridge contact using our special phone patch unit.

The Amateur Radio station relaying the conversation was located in Italy, over which the ISS was passing at the time of the contact.

Claudio, IK1SLD, located between Turin and Milan, was operating the relay. The questions ranged from "What inspired you to become an astronaut?" to food in space, sighting of other lifeforms, and "Do you have a therapeutic clown on board like A. Leboo here?"

Unfortunately, equipment glitches caused our one major disturbance in the lineup of school contacts, but the children were rewarded by a 20-minute (instead of the usual 10 minutes) conversation with Chris when he reconnected through another NASA facility.

The participants signed the poster and it was packed for onward transmission to the next date with space.

MANITOBA

On February 13, we were at Chief Peguis Junior High in Winnipeg. Peguis means "Woodship" in Ojibwa. The school has over 500 students from Grades 7 to 9 and they also invited other students.

Chris Hadfield visited their school in April 2011 and in his speech he said:

"You are all going to grow up to be something. Don't let the world kick you into becoming an adult you don't want to be…. Start planning your future now!"

To the school, the contact with the ISS was the witnessing of the actualization of these words for Chris Hadfield. His words are permanently posted at the school.

Students prepared for the contact by learning about the ISS, the Canadian Space Agency and Astronomy. The entire school competed for the selection of the questions to Chris.

As the school could not come up with equipment and operators, it was decided to have a telebridge contact. This time, the relay station was in Australia where the ISS was passing at the time of the contact. Tony, VK5ZAI, in Kingston SE (South Australia) handled the link. The event was well attended with guests, dignitaries and the local media.

BRITISH COLUMBIA

On February 22, the contact was from Penticton. Terrill Scott, a Fraser Valley Library Supervisor, initiated the request for an ARISS contact. Mr. Scott said:

"As the librarian in a small town, one of the things I take seriously is looking for ways to motivate kids to read and learn. This year, our Summer Reading Club theme is 'Up Up and Away', so space is a big part of the possibilities."

Students from Kindergarten to Grade 6 throughout the South Okanagan & Similkameen Valleys in beautiful British Columbia participated in the event. There were students and home school students from Penticton, West Bench, Oliver and Keremeos.

The event was hosted at Uplands Elementary, a school located in Penticton. Its Principal, Lisa Edwards, believes that students can "SOAR with a view to excellence" in the right environment. There is a team of people in the community whose goal is to

British Columbia: courtesy of Castanet News
http://www.youtube.com/watch?v=ti836FEiCqk

make the Amateur Radio contact a part of a wider educational experience that will inspire students and educators to continue to explore STEM and space exploration for years to come.

The contact was via telebridge through our station in Italy with Claudio, IK1SLD, handling the relay.

Member of Parliament Dan Albas, who was in attendance at the contact, made a very positive reference about the event and ARISS in the House of Commons. Brian Edge, VE7EIR, who was the coordinator for this school contact has posted his comments on YouTube at:

http://www.youtube.com/watch?feature=player_embedded&v=vT-XMCugGuE

PRINCE EDWARD ISLAND

On March 7, we were in Charlottetown, for a direct contact via VY2PEI set up at the site with the help of the Halifax ARC under the direction of Bill, VE1MR and Wayne, VE1WPH. Support was also provided by the Summerside and Charlottetown Amateur Radio clubs. The onsite radio coordinator was Ken, VY2RU.

The contact took place at the Stonepark Intermediate School, which is a large intermediate school (Grades 7 to 9) with over 800 students coming from a widespread geographical mix of rural and urban areas learning in both official languages. This was a first ARISS contact for the province.

Many benefits were derived from the event, among them: 1)Student selection for the contact included the whole school, and as many students as possible were involved in the planning and execution of the ARISS project.

2)It increased the student's awareness of the Canadian Space Agency and Canada's role in the ISS and space exploration, and exposed students to educational and career opportunities in science and technology that relate directly and indirectly to space exploration.

3) It increased student and staff awareness of Amateur Radio.

SASKATCHEWAN

On to the next stop, the Valley Manor Elementary School in Martensville, just North of Saskatoon. Valley Manor is a rapidly growing school with a student population of 630. Their Pre-Kindergarten to Grade 8 students come from a range of ethnic, racial and socioeconomic backgrounds. As a school community, they value working collaboratively across Grade levels and beyond their school walls.

During the 2011-2012 school year, the Canadian Space Agency provided their Grade 6 students with a live-streamed Question & Answer period with Chris Hadfield while he was in Russia training for Expedition 34/35.

The majority of the questions for this year's ARISS contact related to outcomes in their Science, Math and Social Studies curriculums. The ISS event subjects were integrated into three Science units – Electricity, Flight and Space – and proved to be a very interesting addition to the curriculum that covered Space and Human Life in Space.

A committee of teachers, school division personnel and "local media" (including the media is a first for our Canadian ARISS program) chose 10 student questions to be asked during the contact event.

The students involved with the CSA event in the previous year became internally motivated to seek more information about space science and future career opportunities. The school sees the benefits of continued collaboration between schools and space agencies such as increased awareness of Canada's role in space exploration and career opportunities in space science.

The school also seeks to foster relationships between them and local Amateur Radio clubs. For the contact, the station was set up in the school's gymnasium and the antennas were set up on the roof of the gym, with the help of the Meewasin Amateur Radio Society under the direction of Devon, VE5DWR. Radios used were the Yaesu FT-847 and the Kenwood TS-2000. The call sign used during the contact was VE5RAC.

The contact was streamed throughout the entire school and efforts were made to broadcast this event to the entire School Division, encompassing 43 other schools (6,000+ students). The event was video recorded for their club promotional presentations. The school intends to invite Chris to talk to the students at a later date.

QUEBEC

One of the objectives of the ARISS program is to recruit new astronauts. Here is a fine example.

In June 2012, a small family with two young boys visited the Canada Science and Technology Museum in Ottawa.

I was attending the Amateur Radio Exhibit Station VE3JW and introduced the family to Amateur Radio. Cédrick, 10 years old, showed high interest and I invited him to talk to some faraway place over the radio.

He was awestruck and even more so when I mentioned that he could talk to astronauts on the ISS. I told him that he could present the ARISS program to his school principal.

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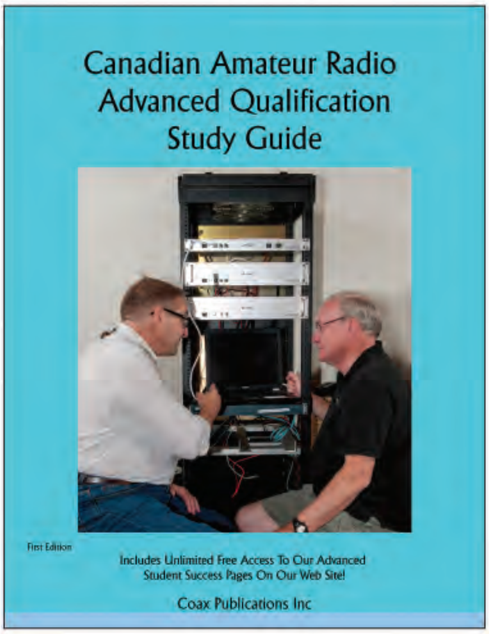

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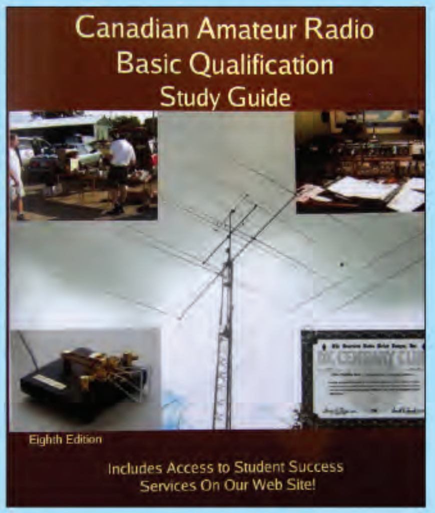

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Back at his school, north of Montreal, he asked to see the School Director and he presented his project. It was immediately accepted by the Director who gathered and asked for participation from all the schoolteachers. The school filled up their application form and I put them in contact with the Club Radio Amateur Laval-Laurentides (CRALL).

Since they wanted an opportunity to talk with Chris Hadfield, who speaks French, they had to forego the direct contact route and opted for a telebridge contact in order to fit in to his schedule. We were able to confirm March 26 for the contact.

Preparations were underway and the school added Space subjects to their curriculum. Competitions for questions, posters and T-shirts took place. The Cosmodome, a huge showcase and learning centre about Space located in Laval, joined in to support the project. They held a press conference to advertise the event and Cédrick was a part of it.

Here is what Normand, VE2NHK, wrote about the activity.

"The CRALL would like to thank Des Cardinaux school for allowing the presentation of Amateur Radio to their Grade 5 students. A few weeks prior to the contact, André Guévin, VE2GCF, author of several Amateur Radio books, explained and demonstrated the hobby to these Grade 5 students who were all ears.

A couple of weeks later, the CRALL organized a contact between Des Cardinaux school and l'Envolée school, also in Laval. Joel, VE2WIZ, and Alonzo VE2PKO, accompanied by Justin, VA2BEE, newly licensed, conducted the contact.

The Grade 5 students, assembled in a classroom in each school, prepared questions for each other. After the questions, both classes exchanged pictures in SSTV. All the students were very impressed by the experiment.

Following this very special event, Cédric and his papa are so very much interested in Amateur Radio that they intend to apply for their licence very soon."

"Le CRALL tiens à remercier l'école des Cardinaux qui a demandé, puisque le contact était prévu en télébridge, d'organiser quelques activités pour faire connaître la radioamateur auprès des élèves de 5^e année. Quelques semaines avant le contact, l'école des Cardinaux a reçu la visite de nulle autre que monsieur André Guévin, VE2GCF, auteur de plusieurs livres sur la radioamateur. Il a expliqué et démontré la radioamateur aux élèves de 5^e année de l'école des Cardinaux, qui ont écouté avec grande attention.

Environ deux semaines plus tard, un contact a été organisé entre l'école des Cardinaux et l'école l'Envolée, aussi à Laval. Pour l'occasion, Joël VE2WIZ eu l'aide d'Alonzo, VE2PKO et de Justin Bonneau, VA2BEE, qui venait tout juste d'avoir sa licence.

Dans chacune des écoles, les élèves de 5^e année s'étaient rassemblés dans une même classe. Ils avaient préparé des questions à poser entre les 2 écoles et certains amis se sont même retrouvés. À la fin du contact, les 2 classes se sont envoyées des photos en Slow Scan TV (SSTV). Tous les étudiants étaient très contents de leur expérience.

Après cette aventure, Cédric et son papa sont plus mordus de radioamateur que jamais et veulent passer leur licence d'ici peu."

Chris Hadfield tweeted a personal message to Cédrick before the contact.

"Good day Cédrick, thanks for the invitation to talk with you. I look forward to receive all the questions. Congratulations for your originality and your efforts!"

L'Ecole des Cardinaux is located in Sainte-Rose in Laval. It is a French Primary School which includes preschool students in the second year of the third cycle. It has 580 students. They all gathered at the school for the contact which was coordinated by Joel, VE2WIZ, of the CRALL.

The relay contact station was K6DUE located in the United States.

All the questions to Chris were in French except for two which were in English.

Parents, dignitaries and the media all attended and CBC Radio Canada reported the event on TV and on the radio. One radio interview done with Cédrick after the contact was especially inspiring. Cédrick told his story about how he came about the idea and got it accepted by his school.

Then the interviewer asked him: "So, you got to talk with Chris Hadfield, a Canadian astronaut, what did you think of that?"

He said: "It was very exciting and very interesting. Do you think you would like to become an astronaut?"

He replied: "Yes, because it sounds like a lot of fun and it is very special."

Stay tuned for Part 2 of this article in the September-October 2013 TCA.

The author is a retired Air Force Captain who started as a radio operator and gravitated all the echelons of the ground electronics trades, comm tech, radar tech, navaids tech, before being commissioned. After retirement, he joined the Amateur Radio community and participated and conducted many radio special events. He managed the VE3JW Amateur Radio Exhibit Station in Ottawa for 12 years, renovating it to include all the facets of our hobby, including satellite communications. In 2009, he was asked to be the AMSAT Canada Delegate on the ARISS International Working Group and he took on the additional responsibility of Canada Representative on the ARISS School Selection Committee.

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Keith D Olson, VE4VO
Jean Ouellette, VE3OKK
Dennis Paganin, VA3DTP
Joseph G Parkinson, VE3JG
G Passmore, VA7GAP
Colin Pavey, VA3FP
Geddie Pawlowski, VE3CJX
Tim Pekkonen, VE3UO
Steve Pengelly, VE3STV
Mark A Perren, VE6IHS
Brent Petersen, VE9EX
Murray K Pierce, VE3IFP
Robert W Piggott, VE7CYU
Dale Pilsworth, VE6DAP
Gary Pollock, VA3GMP
Harold J Porter, VO1JA
Terry Potts, VE3TEP
Everett Price, VO1DK
Byron Pulsifer, VE9BUB
Eric Quiring, VE5HG
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Marty Raine, VE1AE
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Bryan Rawlings, VE3QN
Steve Regan, VA3MGY
Gilles Renucci, VE2TZT
Earl Richardet, VE7QJ
James H Richardson, VA3JHR
Dennis G Ritchie, VE3DXZ
Jeff Robbins, VE3JTR
Bernie Roche, VE3OTR
Peter Rogers, VE3ETR
Bruce Roney, VE3BER
Donlad Rowed, VE3KII
Gerry Saelens, VE7DCW
Edward Samborski, VE3TAS
Patrick Sandi, VE7SDI
Brian Sayer, VA6BCS
Bill Scholey, VE7QC
John D Scott, VE1JS
Ellis Seddon, VE4AJO
Kieran Shepherd, VA3KS
Robert A Shkuratoff, VA7DIV
George B Simpson, VE6HX
Gary W Skett, VE7AS
William E W Skuta, VA3WEW
Robert A Smith, VE3RSG
Major Ian Snow, VA3QT
Dave Snydal, VE4XN
John Sobkowicz, VA6GEO
Margaret Somerleigh, VE3OWL
Mark Spencer, VE7AFZ
Harry H Splett, VE3HHS
Noel T St-Amand, VE3TSA
Alan Steele, VA3STL
Al Stephens, VE3NXP
Jeff Stewart, VA3WXM
Jack Summers, VE3XR
Hiroshi Takahashi, VA7LET
Ann Tekatch, VA3NOE
Alan Thoren, VE4YZ
Jason Timmis, VE7AG
Yori Tsuji, VE4ACX
Ian Graham Turnbull, VE7TGI
W L Underwood, VE1WLU
Bill Unger, VE3XT
Henry Urbanowicz, VE3OEO
Ronald Vadeboncoeur, VE3REV
A E Vaillancourt, VE3DPZ
Hudson C Vallieres, VE9HCV
Todd Van Norman, VE7GBO
Robert Vanderminnen, VA3RMV
Marinus Vanderminnen, VA6OPA
Sanjay Vig, VA2OP
J M A Vigneault, VE3VIG
Ron Vollick, VE3GGX
Andrew Webb, VE6EN
Albert Morris Webber, VE4AMW
Joel Weder, VE6EI
Garth Wetherall, VE3YC
Peter Wetton, VA3PRW
Barry L Wielgoz, VE5HA
Chris K Wiesner, VA3SM
Brice Wightman, VE3EDR
James A Wilkins, VE7UVL
Brian Williams, VE3KNE
Ken Williams, VE9KW
Harold H Wirth, VA3HHW
K Scott Wood, VE1QD
Timothy Wood, VA7TIW
Allen Wootton, VE7BQO
James E Wyse, VO1CPZ

WELCOME NEW RAC MEMBERS!
BIENVENUE NOUVEAUX MEMBRES DE RAC!

We wish to welcome the following new members of Radio Amateurs of Canada for April and May.
Nous souhaitons la bienvenue aux nouveaux membres suivants de Radio Amateurs du Canada pour avril et mai.

Vanessa Abbott, VA7VAZ
Guillermo (Bill) Acosta, VE7BTZ
Francis Albert, VE2FA
Vincent Amyotte, VA5NEE
Normand Arsenault
Edward Biedricki, WB2UKX
J R "Jack" Binkley, VE4HI
Denis Bisson
Paul Boltwood, VE3PLE
John Brent, VA3WPN
Alan Brown, VA3AQB
William R Campbell, VE3NFP
Benjamin Carey, VO1XXX
Victor Carnuccio, VE3HEU
Peter Benjamin Carter, VA2PBJ
Wayne Chalmers, VA6WCC
Carol-Ann Chamberland, VA2CCX
Vincent Charron, VA3GX
Jason Lee Cook, VA6UTC
Richard Adam Cork
Yann Courroux, VE2YCT
Eric Daguilh, VE3NUB
John Karl Dalskog, VE7JKD
Kenneth Evans, VE3EKN
Margaret Ferguson, VE7TJF
Patrick John Finnigan, VA3ZIM
Leon Willem Fourie, VE5LWF
Morley Bruce Ganton, VE7BLK
Patricia Ann Gerrior, VA3HRM
Xavier Gomez-Smith, VE2XGS
Gary Goodman, VA4RWT
Cameron Alexander Grant, VE3CA
Douglas Hall, VE3WRF
Benjamin Hermiston, VE3EER
Geoff Howard, VE7GHH
Noreen Irwin-Hann, VE3AQZ
Neil R Jensen, VE6NRJ
Madison Jones
Haksoo Kim, VA3KHS
Gary E Kyte, VE3IVU
Sophie Hannah Lamb
Simon David Lamb, VA7SDL
John Lang, VE3DKK
Douglas Frederick Leavens, VE3DXL
David Irving Lorenzen, VE3CZL
Brian Lowery
Jim MacKenzie, VE5EIS
Alexander Scott Thomas MacKinnon, VA1XXX
Bryan Martin, VE9BRY
Ed Martin, WE7EM
David Maynard, VA3MYD
Philip Alexander McBride, VA3QR
Cassandra McBride, VA3MEW
Matthew McLaughlin, VE7QAC
Alexander Henry McLeod, VE6AHF
John Bruce Montague
Christopher Murphy, VE3XCM
Michael Clive Newton, VO1OK
Kevin O'Hara, VA3KVI
Gary Peacock, VE6RCZ
Greg Wayne Penner, VA4FLT
Phillip Perfitt, VA3PRF
Keith Howard Perry, VO1FZ
Tom Pillon, VE3HOR
André Poitras, VE3LTY
William H Proctor, VE3BXP
Jeff Rhyason
Robert David Robertson
Cameron Rodger, VE4CDR
Heather Rodger
David Ryeburn, VE7EZM
David Bernard Sangwin, VA3NSC
Peter Schonrock, VA3PRS
Ronald Gordon Scriver, VE3LUZ
André Simard
Houstin Smith, KA0HMQ
Jason Stauffer, VE7JST
Donald Studney, VE7DS
Michael Taylor, VA3MMP
Thomas Todd, VE3PVI
Claudette Traill, VE3TCT
Valerie Webb, VA3VAW

Note: Please see page 9 for more information on the RAC Maple Leaf Operator program.

Radio Amateurs of/du Canada

- ✓ **Your** national voice, representing our interests at Industry Canada and throughout the world.
- ✓ *The Canadian Amateur* magazine, filled with news, regulatory information and articles of current interest. TCA covers topics of interest to all Radio Amateurs, both newcomers and oldtimers alike.
- ✓ The *National Outgoing QSL Bureau*, for members only!
- ✓ **And much, much more!**

- ✓ **Votre** voix nationale, qui représente nos intérêts à Industrie Canada et à travers le monde.
- ✓ *The Canadian Amateur*, rempli d'actualités, les informations sur la réglementation et des articles d'actualité. TCA couvre des sujets d'intérêt pour tous les radio amateurs, les nouveaux amateurs et grands-grands.
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Note: for more information on the benefits of becoming a Maple Leaf Operator please see page 9.

New pricing structure effective January 1, 2013:

Please add the applicable GST/HST for your province
- AB, BC, MB, SK, NT, NU, YT, QC + 5% GST
- NB, NL, ON + 13% HST
- PE + 14% HST
- NS + 15% HST

Please visit the RAC website for complete information on the pricing structure.

Just click "Join RAC" on the menu bar of the RAC website: www.rac.ca

Membership Type: Full Member

- Full – Regular (e-TCA) $48
- Full – Regular (paper TCA) $56
- Full – Family (e-TCA) $25
- Full – Blind (e-TCA) $25
- Full – Maple Leaf Operator (paper TCA) $100
- Full – Life (e-TCA) no charge
- Full – Life (paper TCA) $8

Membership Type: Associate Member

- Associate – Regular (e-TCA) $48
- Associate – Family (e-TCA) $25
- Associate – Blind (e-TCA) $25
- Associate – US (e-TCA) $ 48
- Associate – US (paper TCA) $90
- Associate International – (e-TCA) $48
- Associate International – (paper TCA) $130

- Associate – Libraries / Museums (paper TCA) $56
- Associate – Corporate (paper TCA) $150
- Associate – Corporate International (paper TCA) $350

BUGS, BANDS AND ZERO BEATS...

Bill Karle, VE4KZ

Sighing pines, gurgling waters and glistening antenna wires! What outshines Amateur Radio mixed with camping? I imagine that there is an answer but I steadfastly do not seek it!

Before recounting my hamming *cum* camping experiences, let me remind us to be cautious when shooting lines over trees, staking out antennas, putting up and guying a mast, and so on. Have an observer keep an eye on other campers and vehicles so you do not “bean” someone. Mark ropes and wires with a “flag” so that people, including you, will not trip over them. Put wires beyond reach of people and animals.

I like to play with antennas. As a young ham, my buddies and I were fans of “loading up” whatever would conduct. Yes, I did get QSOs on the proverbial bedsprings. I even got out using the aluminium window frame at my university apartment. And, I incubated a few RF burns!

Still trying different radiators, one conventional camping antenna is the 20m band dipole shown in Figure 1. This antenna is a sloping one. I slingshot a lightweight line over a tree and that line is used to haul a rope up and over. I use the rope to raise one end of the antenna. The other end is free to be walked around the campsite and staked in favoured directions since the radiation pattern from a sloping wire slightly is directive (see Figure 2 below).

Another is a 15m band ground plane vertical antenna. I pull up a vertical wire that is one-quarter wavelength long. It terminates on the centre conductor of a UHF coax connector.

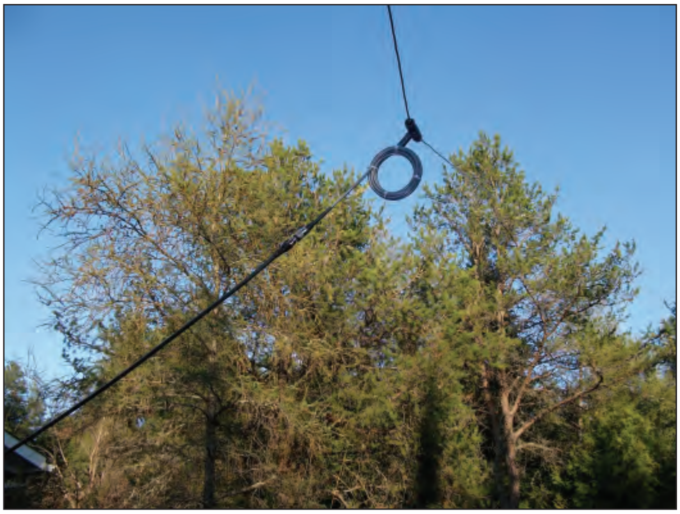

Figure 1: The 20m half-wave sloping dipole. Notice the coiled coax transmission line choke. The antenna is linked to the transmission line via a barrel connector. Any other antenna easily can replace the 20m one by attaching at the barrel.

Affixed to the connector’s flange, are one quarter-wavelength wires arranged opposite each other and horizontally. Figure 3, from a 40m vertical that I had made earlier, shows the arrangement. The vertical works very well.

Both of these antennas have a notable drawback: they are monobanders. Packing antennas for the other bands or using a multiband dipole would solve the problem at the expense of complexity.

When difficulties arise, return to basics. The end-fed wire using an antenna matching unit (AMU) is basic. Our recent outings featured about 50 feet of wire shot over a tree. The antenna wire was connected to the AMU. Another wire ran from the AMU to establish a “ground”. More about that in a moment. The AMU was connected to the transceiver using a short coaxial cable.

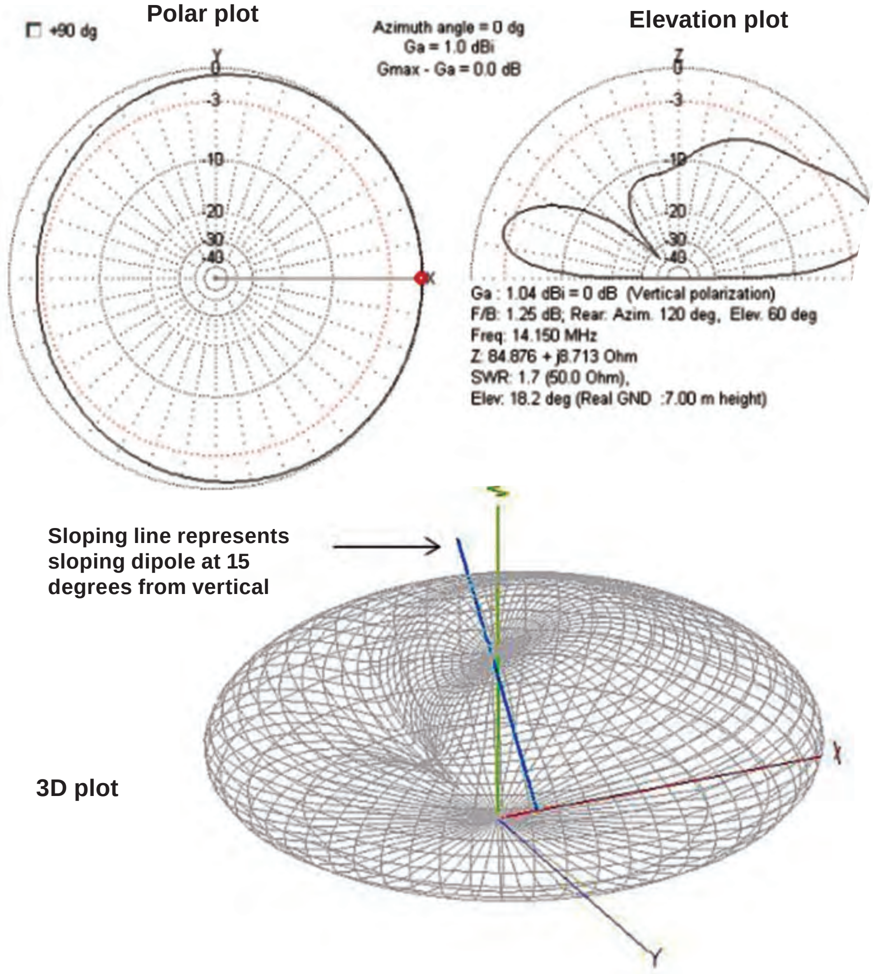

Figure 2: Radiation pattern for the 20m sloping dipole which was derived using MMANAGAL_basic, version 3.0.0.31 by Makoto Mori, JE3HHT et al.

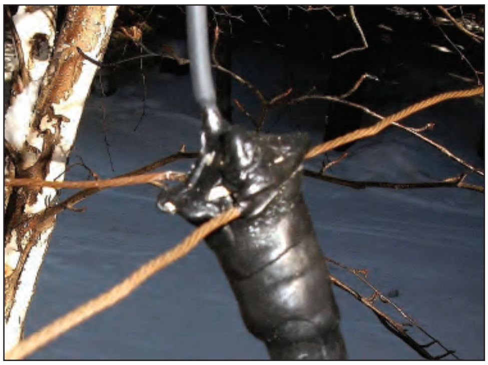

Figure 3: Typical quarter-wave ground plane vertical termination.

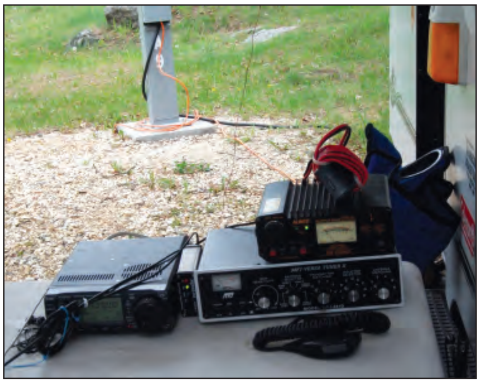

Figure 4: Transceiver, rig-to-computer interface, AMU, and above it, the switching power supply. The thin vertical wire is the driven end of the end-fed wire.

The end-fed wire functioned well on 15, 17, 20 and 40 metres but was "touchy" on 30 metres. That case probably resulted from the length being close to a half-wave and presenting too high an impedance for the AMU. DX QSOs were garnered on the 15 and 20 metre bands.

Another multiband antenna would be a convenient length of wire centre-fed with ladder line or window line. I have not used this antenna while camping but do know its good versatility. A clever multiband dipole uses wire sections linked or unlinked with wire jumpers to make several different wire dipoles (see the AD5X reference).

About that "ground" issue: I always establish good DC and RF grounds. The DC ground is to make sure that the rig does not pose a danger of an electrical potential between it and ground with someone as the conductor. Lethal! I usually push a three-foot pointed rod into the earth and connect it to the AMU's ground terminal. This rod was saved from a barbeque spit. While this DC ground often provides a ground for RF, sometimes it doesn't and the symptoms are RF on the equipment cases and accessories and perhaps RF in the audio and erratic unit operation. In that case, I connect to the rod – and stretch on the earth's surface – at least one wire to serve as a counterpoise. The transceiver's ground connection is via the short linking coaxial cable's shield.

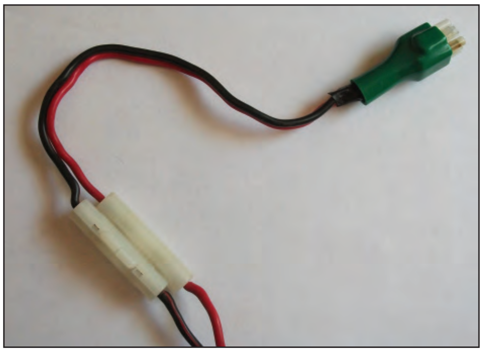

Figure 5: 12 volt DC supply cable for the transceiver. Note the two inline fuse holders, one in each wire.

I use my trusty Icom IC-706MKIIG, a multimode, HF+VHF rig. Power comes from a portable or car battery or, if available, the campsite's 120 volt AC supply.

On this occasion, we had electrical service, thus the Alinco switching power supply. You will note that a casual setup prevails (see Figure 4 at left).

The dog's transport kennel supports the transceiver, AMU, rig-computer interface, and accessories. I use a MacBook computer for operating the digital modes. This site is pretty "cushy", being under the camper's awning, seated in a nice chair, with the coffee pot just inside the camper door (see the photo at the top right).

The transceiver, AMU, end-fed wire antenna, mike, straight key and lightweight rope fit into, of all things, a container that once held cat litter. It's water repellent and sports a convenient handle. Other antennas and slingshot go into the car's storage compartment along with the XYL's fishing gear.

When we lack AC service, the rig runs from a portable battery or the car's battery. I use the cable supplied with the Icom IC-706MKIIG.

A very important caution:

Both leads of the cable are individually fused, not just the "plus" lead as is common (see Figure 5). The reason for this is simple. There are several ways in which one lead of the cable could inadvertently short to the other or to a low impedance path – such as through the trailer's frame – setting up a dangerous condition wherein the battery is short-circuited with dangerous consequences.

I am replacing the inline compression fuse holders with ones that take common ATO fuses. They fit better and are the standard used in my vehicles and home shack.

The XYL had a great idea while we were at a fleamarket. Noting the dearth of young Amateurs, she suggested we be more visible in the campground. "Maybe a sign inviting campers to see the ham radio station," she suggested.

The idea has proselytizing merit, don't you think? Amateur Radio and camping equals happy campers, you know.

FURTHER READING

There are organizations that mix Amateur Radio with camping, RV'ing, hiking, etc. Here are a few.

http://www.arcc.org.uk

http://www.gvrg.org/

http://www.hfpack.com

http://www.openroadsradio.net/

http://www.sota.org.uk

R. Dean Straw, Ed. *The ARRL Antenna Book*, 21st edition. Newington, CT: The American Radio Relay League, 2007. See the chapter on portable antennas.

For a clever 40 to 10 metre dipole using jumper wires to select appropriate resonant lengths plus additional features. visit Phil Salas, AD5X's website at: http://www.ad5x.com/images/Articles/Dipole%20RevA.pdf

Bill Karle, continuously licensed since 1957, has held calls K8QGT, VE2ECW, 4S7KZG and, for the previous 25 years, VE4KZ. Bill is a Certified Emergency Coordinator. His radio interests include antennas, propagation, digimodes and DXing. He is retired following a career in international consulting and university teaching and administration.

GETTING STARTED ON THE AMATEUR RADIO SATELLITES

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Many readers might be surprised to learn that Amateur Radio's presence in space goes well beyond the Amateur Radio satellites.

Amateur Radio has also been an integral part of operations aboard the US Space Shuttle, the Russian *Mir* Space Station and, more recently, the International Space Station (ISS).

In fact, Amateur Radio's presence in various nations' manned space activities now goes back well over 25 years!

The whole idea grew out of the work of some forward thinking Radio Amateur Satellite Corporation (AMSAT) people back in the late 1970s and early 1980s.

The first opportunity came when Owen Garrett, W5LFL, was selected to fly on NASA's *Skylab* – the USA's first "manned orbital laboratory" that was made out of an old *Saturn 5* upper stage.

And while a formal request *was* made to NASA for Owen to carry his Amateur Radio along on that mission, it unfortunately came too late in the planning stages for NASA and others to make the necessary preparations for its use aboard the *Skylab*.

The bulk of this article was previously published as "Manned Space and Amateur Radio" in the May 2011 issue of Monitoring Times, Brasstown, NC 28902. Thank you MT!

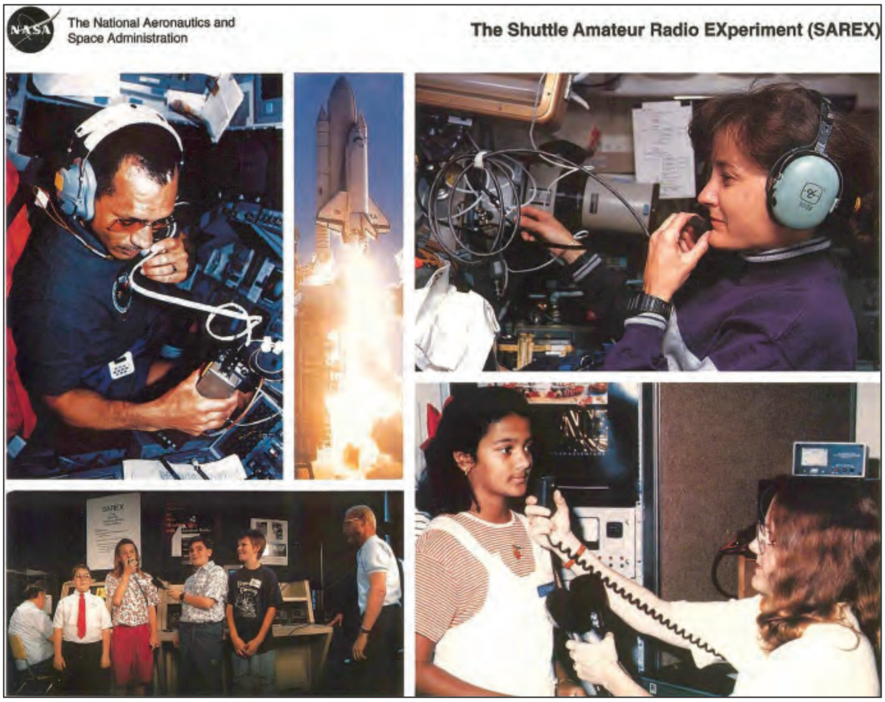
Some 10 years later – and with the encouragement of several AMSAT people working both in and outside of NASA (along with the good offices of the American Radio Relay League) – permission was eventually secured for Owen to operate Amateur Radio during his STS-9 mission aboard the Space Shuttle *Columbia* in the fall of 1983.

And what a success it was! During his 10-day voyage, Owen made contacts with a number of Earth-bound hams from the Shuttle – including a few notables such as Jordan's King Hussein, JY1 and US Senator Barry Goldwater, K7UGA (both now Silent Keys).

THE BIRTH OF SAREX

Needless to say, this activity eventually led NASA to conclude that carrying Amateur Radio aboard the Space Shuttle garnered benefits to both NASA and the Amateur Radio Service, so much so that ham radio equipment eventually became a "frequent flier" on a number of subsequent Space Shuttle missions.

For many years, the Shuttle Amateur Radio Experiment (or SAREX as it came to be known) put school children (and ordinary hams) in direct, "voice-to -voice" contact with astronauts orbiting the Earth from the Space Shuttle.


The National Aeronautics and Space Administration
The Shuttle Amateur Radio EXperiment (SAREX)
SAREX

An early NASA promotional poster for the SAREX project. (Courtesy: NASA)

No doubt, those contacts launched countless careers in science, technology, engineering and math (STEM) from those who participated.

AMATEUR RADIO AND *MIR*

But, the idea of carrying along Amateur Radio on space voyages also wasn't lost on other nations, including the Russians orbiting aboard their Russian Space Station *Mir*. In late 1988, Team Commander Vladimir Titov and Dr. Valeri Poliakov made several contacts with Amateurs on the ground from *Mir*. Eventually, *Mir* carried a 2-metre voice transceiver as well as a packet radio transponder and Bulletin Board System (BBS). The packet radio BBS acted much like an early ham radio version of those Internet social networking sites we all now take for granted. At one point, even an Amateur Slow Scan Television (SSTV) system was carried aboard the craft.

Amateur Radio was in operation aboard *Mir* for over 10 years, and its ham equipment was used not only by hams from the (then) Soviet Union, but also licensed Amateurs from Japan, Great Britain, Austria, France and the USA, all of whom spent various periods of time aboard *Mir* augmenting the permanent Russian crew.

Long-time AMSAT member and former NASA Astronaut Ron Parise, WA4SIR (SK), makes a SAREX contact during one of his two flights aboard the Space Shuttle "Columbia" in the 1990s. (Courtesy: NASA and AMSAT)

ARISS IS BORN

In late 1986, another meeting organized by Roy Neal, K6DUE (SK) of NBC-News TV fame, once again brought together representatives of NASA, AMSAT and the American Radio Relay League (ARRL) to consider a program leading to Amateur Radio literally being built into the new International Space Station (ISS) then under development by NASA.

The meeting established a formal working group to develop a proposal to be submitted to NASA for Amateur Radio's participation on the ISS. The group, known today as the Amateur Radio on the International Space Station (ARISS) committee, grew out of those early meetings and has since become the driving force behind keeping Amateur Radio aboard the ISS.

WHAT IS ARISS?

The ARISS project has since evolved into a volunteer program whose principal aim is to inspire students, worldwide, to pursue careers in science, technology, engineering and math by providing Amateur Radio communications opportunities with the International Space Station on-orbit crew. Students learn about life onboard the ISS and explore Earth from space through their classroom participation in such things as orbital tracking and radio wave propagation studies to and from space.

Currently, the ARISS working group consists of delegations from nine different countries including several countries in Europe as well as Canada, Japan, Russia and the USA. Volunteers from the national Amateur Radio organizations of each country run the organization in partnership with their respective AMSAT organizations.

Since ARISS is international in scope, the team also coordinates locally with their country's space agency (for example, CSA, ESA, NASA, JAXA and the Russian Space Agency) as well as through ARISS working group meetings, teleconferences and via electronic mail.

Astronaut Sunita Williams, Expeditions 14 and 15 Flight Engineer, talks with students at the International School of Brussels in Belgium from the ISS's Zvezda Service Module during an ARISS school contact. (Courtesy: NASA)

With the able assistance of experienced Amateur Radio volunteers from Amateur Radio clubs as well as coordination with representatives of the ARISS Team, the program puts ISS crewmembers "voice-to-voice" with large audiences in a variety of public forums where students, teachers, parents and communities can learn about space and space technology – and of course Amateur Radio – firsthand.

More information about ARISS (including how and where to request an ARISS school contact) can be found at: http://www.rac.ca/ariss/. Also, NASA's "official" Web link to the ARISS project is at: http://www.nasa.gov/mission_pages/station/research/experiments/ARISS.html

MORE THAN SCHOOL CONTACTS

Besides interesting students in scientific careers, the ARISS equipment aboard the ISS also provides an emergency backup communications capability for NASA for use when their official communication channels to the ISS go down. While such occurrences are rare, the ARISS equipment aboard the ISS has actually been used for this purpose on at least two occasions.

What's more, ARISS provides the onboard crew with an unofficial way for them to speak directly with friends and family as well as other Amateur Radio operators on Earth during their off-duty time. In many ways, ARISS provides the ISS crew with a great way for them to stay connected with other human beings (besides their crewmates) during their many months of isolation aboard the ISS. This may also be why nearly 75 percent of NASA astronauts now hold FCC-issued Amateur Radio Licences.

ARISS OPERATING FREQUENCIES

(Call Sign: NA1SS)

2m Crew Contact (ITU Regions 2 & 3)
Uplink: 144.4900 MHz FM
Downlink: 145.8000 MHz FM

2m Crew Contact (ITU Region 1):
Uplink: 145.2000 MHz FM
Downlink: 145.8000 MHz FM

2m APRS (Worldwide APRS Digipeater):
Simplex: 145.8250 MHz FM 1200 BPS
Downlink: 145.8250 MHz FM 1200 BPS

2m Imaging:
Downlink: 145.8000 MHz SSTV

70cm/2m FM Voice Repeater (Worldwide):
Uplink: 437.8000 MHz FM
Downlink: 145.8000 MHz FM

To help Earth bound hams get a better idea of what its like to operate via Amateur Radio from orbit, one of AMSAT's project engineers for ARISS, Ken Ransom, N5VHO, has posted a fascinating YouTube video from NASA TV on the Internet (http://www.youtube.com/watch?v=h73EYcyszf8) that shows ISS Expedition 25's Commander Colonel Doug Wheelock, KF5BOC, operating the ARISS equipment from onboard the ISS. After taking viewers on a quick tour of the Space Station, Colonel Wheelock then puts the ARISS ham station on the air during an ISS pass over North America.

WHAT TO LISTEN FOR

As of this writing, the ARISS equipment aboard the ISS was capable of operating on a variety of frequencies as well as in a number of different modes in the 2m and 70cm Amateur bands. Using the ISS's officially assigned FCC call sign NA1SS, these operating modes included FM voice, Slow Scan Television (SSTV), Automatic Packet Reporting System (APRS) tracking and a 70cm to 2m crossband repeater. While NASA has recently approved the addition of a second ham station aboard the new *Columbus* module, only one Amateur station (currently consisting of a Kenwood D-700 Amateur transceiver) is fully operational at this time (see the ISS frequency chart at the top right).

WHEN TO LISTEN

It is important to remember that the ISS is in a *very* low Earth orbit. As such, your available "talk time" during an ISS pass from any single location will be noticeably shorter than for most other Amateur Radio satellites. What's more, because the station does a lot of on-orbit manoeuvering, having a fresh set of Keplerian Elements loaded into your computer's tracking program is absolutely critical when trying to make contact with the ISS.

Remember, too, that, aside from school contacts, the crew uses the ARISS equipment primarily during their off-duty time and may actually be asleep when the ISS passes over your part of the planet. This, in turn, means that making a non-scheduled contact with the ISS crew will usually be a rare treat that is very much subject to the "luck of the draw".

Over the years, I've found the best way to snag a random ISS contact is to program all of the ARISS 2m downlink (and/or uplink) frequencies (plus a few more immediately above and below the published frequencies to account for Doppler shift) into your radio's memory well ahead of time. Then, as the ISS comes over the horizon at your location, rapidly switching (or scanning) all of these frequencies will quickly tell you which, if any, of the ARISS downlinks are active on the pass.

If you want to try to make a contact, once you've found an active ISS frequency and mode, the common practice for voice contacts is to very quickly drop your call sign into the fray on the uplink after the ISS crewmember completes a CQ call (or finishes another contact). Because there will most certainly be many other stations calling them (calls that you probably won't hear), keeping your calls short will significantly improve your chances of being heard above the fray on the other end. Unfortunately, the "capture" effect of FM means that the operator aboard the ISS may sometimes only hear "white noise" interspersed with small fragments of call signs, especially during passes over the more populated parts of the planet like North America and Europe.

So, unless you hear the ISS operator answering someone else, keep repeating your call sign over and over again (with frequent breaks) and be ready to repeat your full call sign once again – or several times – if asked. On the other hand, if the crewmember answers a call from another station, be courteous and stand by to await your next chance. Eventually, both your courtesy (and your patience!) *will* pay off with a coveted ISS contact.

LOOKING AHEAD

In future columns, I'll be taking a closer look at the history and operational characteristics of some other Amateur Radio satellites now in orbit along with a peek at some of those now under development. See you then.

REFERENCES

Tynan, William A. (et al) *AMSAT: The First Forty Years*, Silver Spring, MD: Radio Amateur Satellite Corporation, 2009.

THE MISSISSAUGA NET

The Mississauga Net was founded by Doug Last, VE3NBL and Dr. Ernie Meyer, VE3EGM (SK) and began SSB operation in 1981 to allow Canadian boaters, who often went offshore to places such as Bermuda and the Caribbean, to maintain contact with friends and family on a daily basis. Position reports, weather outlooks, general chatter and medical emergencies were all part of net operations as well as monitoring vessels in distress and helping arrange rescue at sea on rare occasions.

Over the years, there have been many operators from different locales who have participated in the net by providing net relays when net control couldn't copy a boat and the information they needed to be passed. Doug, VE3NBL, Ernie, VE3EGM and VE3HAX, all contributed to initiating the net in its early stages and as it progressed over the years. Many others were net relays such as: VE3SQD ("Ron on the Don" now VE9SQ in St. John, New Brunswick); Marty, VE2MH, with his big signal from Montreal; Orval, C6AHZ, from Andros Island; Tom, VP9V, in Bermuda; Don, 6Y5DA, in Jamaica; and Win, VE1WIN, in Halifax, Nova Scotia. All these ops spent countless hours on a daily basis keeping the net running. They have served the net well over the years and the net owes them a debt of gratitude. If I have missed anyone, I sincerely apologize. I know that Ron in Ottawa (SK) who was there for many years – and whose call sign I cannot (with regret) recall – was invaluable with another big signal on the net.

Current technologies like the "SPOT" system, satellite phone and Winlink have all made some of the services of the net "obsolete", however there is still a need, as is evidenced by the boats still continuing to avail themselves of that "friendly voice from Canada" every Monday through Friday at 1230Z on 14.122.50 (20 metres) and, if requested, coverage on the weekends for lengthy "blue water" passages with position reports, weather forecasts and at the very least an "all well on board".

The Mississauga Net is currently understaffed as operators have moved to residences where HF radio operation is not possible, have become Silent Keys or gone on to other pursuits – and so this is also a brief request to those who might be interested in furthering the net to contact me and let me know of this interest.

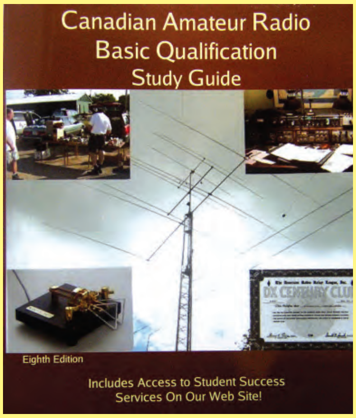
This net might also appeal to those who are both new to boating and/or new to Amateur Radio.

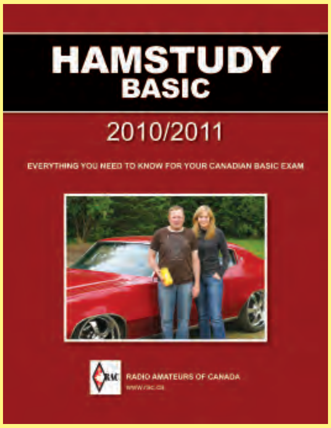
The net is a directed net so those interested should familiarize themselves with its protocols. In addition, a knowledge of boating skills and terminology is, of course, an asset. A basic knowledge of longitude and latitude as well as the ability to consult a map/chart (usually of the Caribbean) so as to be familiar with a vessel's location are all things a net participant should be aware of.

If you feel that you can help and would like to participate, please contact me at vo1dd@rac.ca and I would be happy to provide more information regarding the net.

Doug Card, VO1DD – Net Control Station – The Mississauga Net

RAC OFFERS BOTH BASIC STUDY GUIDES





Visit: http://www.cafepress.ca/rac_radio

Phillip Boucher, VE3BOC
E: phillipjboucher@gmail.com
www.phillipjboucher.com

FRESH ON THE AIR

– ADVENTURES FOR THE NEW AND BEGINNING HAM

NOT AT THE SHACK?

No problem! QSO around the World without a radio!

Ken had everything packed in his bag; clothes, toiletries, laptop. Before he left the house, he ventured past the room that served as his communications shack. Looking in, the radio beckoned him silently from the desk. He wanted to do one more QSO on 40 metres, but he was late. The cab waited outside and his flight would be leaving shortly. He turned slowly and left, the radio equipment to sit quiet for all the time he would be away. No mobile rig on this trip. And his handheld had died only a few days before.

At the hotel, he put his things away and set up his laptop. While he waited for it to boot up, he put on his headphones and boom mike. The boot was done and he got on Skype to connect with his colleagues to discuss the meeting for the morning. It was a boring discussion as always, and he was glad when it was over. Clicking on an icon on his desktop, he made a coffee while the program initialized. He then clicked on a few areas on the screen, then pressed the left CTRL key.

"G4***, G4***, this is VE6*** calling."

He released the key and waited. He pressed the left CTRL key again.

"G4***, this is VE6***."

"VE6***, G4***. Hello old chap. Made it to the hotel in Chicago, I see? I'm just in the parking lot waiting for Gladys to get the 'scripts from the druggist. Have a new one for gout now. How's work going? And how is the weather over there? Cold and rainy here, typical British day, you know."

Ken continued to chat with – hey wait a minute! How did Ken talk with his friend in England who was on his radio in his car, when Ken had no radio with him? Evil electronic magic from some elven monk warrior goddess from one of those online multiplayer fantasy games? Alien telepathic bridging? Or maybe just a Wi-Fi connection, his laptop, and a piece of software. Naw, I'm going to go with the elven monk warrior goddess! Level 85!

Although some of us wish the magic were real, all Ken did was connect to the special network from his computer through the Internet, key up a local repeater in England near his friend, and talk directly with his friend who was on his mobile rig, just as if he were at home on his rig in his shack. Welcome to the wonderful world of EchoLink.

As long as you have a computer, laptop, netbook or Android tablet, and access to the Internet, you can talk to other Amateurs all around the world anytime you are away from the home shack. How convenient is that?

Though similar to IRLP, EchoLink has the unique ability to allow PC-based Amateurs to access the network and remote repeaters and radios. Because you are actually controlling the keying of remote radio stations, you need to be a Certified Amateur Radio operator before you can access the network. But once the EchoLink software has been downloaded and installed and your call sign is validated with the EchoLink operators, the world is yours. For free!

Unlike other wide-area Amateur Radio systems that only link radio stations, EchoLink will also connect computer based users to the network to access other computer and radio-based users. This means that you do no have to have a radio to talk to other Amateur Radio operators around the world.

There are four different types of stations, or nodes, on EchoLink:

Users: These are users using computers connected to the network via the Internet. No radio is required to link to other computer-based users or actual transceivers. All you need is a speaker or headset, a microphone and the EchoLink software.

Links: These are radio transceivers connected to the network. Computer-based users can key up the transceiver just as local radio users can. Links are usually simplex stations, so you will be chatting with local radio users only, but with any computer-based user on the network connected to the node.

Repeaters: These are regular FM repeater stations which allow you to chat with not only other computer users on the node, but any radio user on the node that can access the repeater.

Conference: A conference node is like a chat room in which several stations are connected together, be they computer users, links or repeater nodes.

The Conferences can be quite entertaining as they are usually organized either by area or by topic. Are you a female Australian Amateur? There's a Conference just for you. Live in Alaska? One for you too. Into Skywarn, want to talk to Russian hams, or interested in knowing the secrets of Freemasonary? There's a Conference for that. In fact, you can QSO locally or around the world with Amateurs of many different diverse cultures who share a similar interest to you. Conference nodes are quite popular.

EchoLink allows you set various parameters to customize your operating style. You can assign the Push-to-Talk "button" to the middle mouse button or to one of your computer's keys, select what types of stations you can see on the interface, and set some security options.

I have successfully used my Netbook, cheap headset with boom mic, and the EchoLink software at various fast-food outlets that have free Wi-Fi services without any hindrance to network connectivity. However, because EchoLink uses computer ports to send and receive data, you may have to open up or disable your firewall and settings, and "port forward" your router to get EchoLink to work. But fear not. The EchoLink website gives great instructions and information on resolving communications issues.

So next time you're away from the shack, have no radio, and get the urge to QSO, connect with EchoLink through your computer. You never know who you'll be chatting with. For more information visit: http://www.echolink.org

Transmission Tidbit: Observational Trivia – Did you know that about half the hams who have Amateur plates put a space between the prefix and suffix of their call sign? Why?

I would love to hear from our new female and very young Amateurs on your first impressions of the hobby, both positive and negative. Write me via the magazine; email me at phillipjboucher@gmail.com, or via my website at http://www.phillipjboucher.com. New E-book to be available sometime in 2013, "The Complete Guide to Yaesu's VX-6R".

NOTICE TO RAC MEMBERS RESIDING IN THE ALBERTA/NWT/NU, ONTARIO SOUTH AND QUEBEC REGIONS

Call for Nominations of Candidates for Regional Director to serve on the Board of Directors of Radio Amateurs of Canada Inc.

The Secretary of Radio Amateurs of Canada Inc. hereby solicits nominations for the positions of Director for the Regions of Alberta/NWT/NU, Ontario South (postal codes L, M and N) and Quebec. Elections for these positions will be held in October 2013 to take office on January 1, 2014 for a two-year term.

Incumbents:

Alberta/NWT/NU: J.T. (Mitch) Mitchell, VE6OH

Ontario South: Jeffrey Stewart, VA3WXM

Quebec: Sheldon Werner, VA2SH/VA6SH

1. The Candidate:
   - ✓ must be a Full Voting Member of RAC
   - ✓ must have reached the legal age of majority
   - ✓ must reside in the Region for which he or she is nominated
2. A candidate may not nominate himself/herself.
3. The nomination form will:
   - ✓ be printed or typed
   - ✓ clearly indicate the candidate's name, call sign and RAC membership number
   - ✓ clearly indicate the names, call signs, RAC membership numbers and original signatures of ten (10) or more full voting members of RAC
4. The nominators must have reached the legal age of majority and must reside in the same Region as the candidate whom they are nominating.
5. Each candidate must:
   - ✓ sign the nomination form, indicating a willingness to be nominated
   - ✓ include with the nomination a brief biographical sketch/CV limited to 500 words succinctly setting out his/her background and qualifications. A candidate choosing to submit a biographical sketch in both English and French languages will be allowed 500 words in each language. The biographical sketch will not include any campaign platform material.
6. All **original nominations and supporting documentation, including the biographical sketch,** must be **received** by the Secretary of RAC at the address indicated on page 39 by 3 pm on Friday, September 6, 2013.

It is suggested (but not required) that the nomination forms be sent by registered mail.

AVIS AUX MEMBRES DE RAC RÉSIDANTS DANS LES RÉGIONS DE : ALBERTA/TNO/NU, DU SUD DE L'ONTARIO ET DU QUÉBEC

Appel de mises en candidatures pour le poste de directeur de région siégeant au conseil de direction de Radio Amateurs du Canada Inc.

Le Secrétaire de Radio Amateurs du Canada Inc. sollicite des candidatures pour le poste de Directeur pour les Régions de Alberta/TNO/NU, le Sud de l'Ontario (codes postaux L, M et N) et le Québec. Des élections pour ces postes se tiendront en octobre 2013 pour prendre effet le premier janvier 2014 pour un terme de deux ans.

Candidats sortants :

Alberta/TNO/NU : J.T. (Mitch) Mitchell, VE6OH

Sud de l'Ontario : Jeffrey Stewart, VA3WXM

Québec : Sheldon Werner, VA2SH/VA6SH

1. Le candidat :
   - ✓ doit être membre en règle de RAC
   - ✓ doit avoir atteint l'âge légal de la majorité
   - ✓ doit résider dans la région pour laquelle il est mis en nomination
2. Un candidat ne peut se nominer lui-même.
3. La formule de mise en nomination devra :
   - ✓ être dactylographiée ou imprimée
   - ✓ montrer clairement le nom du candidat, son indicatif d'appel et son numéro de membre chez RAC
   - ✓ montrer clairement le nom, l'indicatif d'appel, le numéro de membre RAC et les signatures originales d'au moins dix (10) membres en règle de RAC
4. Les nominateurs doivent avoir atteint l'âge légal de la majorité et demeurer dans la région du nominé.
5. Chaque candidat doit :
   - ✓ signer la formule de mise en nomination, indiquant son accord d'être mis en nominé
   - ✓ inclure avec la nomination une courte note biographique/CV, limitée à 500 mots, décrivant succinctement ses antécédents et ses qualifications. Un candidat qui désire soumettre sa biographie en anglais et en français se verra alloué 500 mots dans chacune de ces langues. Les notes biographiques ne devront inclure aucun élément de la plate-forme électorale.
6. **Tous les documents originaux de mise en candidature et les documents reliés**, incluant la note biographique, devront être reçus par le Secrétaire de RAC à l'adresse indiquée sur la page 39 d'ici 15h00 le vendredi 6 septembre 2013.

Il est suggéré (mais pas obligatoire) que les documents de mise en candidature soient expédiés par courrier recommandé.

Faced or emailed documents will not be accepted.

✓ Clearly indicate on the mailing envelope that Nomination Documents are enclosed.

✓ The envelope will be held unopened until after the closing deadline of September 6, 2013. After this date, the Election Committee, under the supervision of the RAC Secretary, will open all submissions, review the documentation for accuracy, completeness and validity, and then announce the results of the Call for Nominations. The decision of the Election Committee is final.

✓ Should a balloted election be required in any of the regions, ballots will be mailed from RAC Headquarters on or before October 1, 2013.

Nominations must be sent to the following address:

Secretary, Radio Amateurs of Canada
720 Belfast Road, Suite 217
Ottawa, ON K1G 0Z5

Clearly indicate on the envelope “Nomination Documents”.

Les documents expédiés par courriel ou par télécopieur ne seront pas acceptés.

✓ Indiquez clairement sur l’enveloppe qu’elle contient des formules de mise en candidature.

✓ L’enveloppe restera scellée, jusqu’après la fermeture des mises en candidatures du 6 septembre 2013. Après cette date, le comité électoral, sous la gouverne du secrétaire, ouvrira toutes les candidatures soumises, et vérifiera la documentation quand à sa validité, son exactitude et sa complétude, et annoncera ensuite le résultat de cet appel de mises en candidatures. La décision du comité électoral sera finale.

✓ Si une élection était requise dans l’une des régions, les bulletins de vote seraient postés du quartier général de RAC le premier octobre 2013
ou avant.

Les mises en candidatures doivent être envoyées à l’adresse suivante :

Le secrétaire, Radio Amateurs du Canada
720 Chemin Belfast, Suite 217
Ottawa, ON, K1G 0Z5

Indiquer clairement sur l’enveloppe « Documents de mise en candidature ».

WE NEED YOUR HELP!

DEPUTY DIRECTOR

The position of Deputy Director was approved by the membership at the Halifax AGM in 2010 and subsequently approved by the federal government in February 2011. The Deputy Director position provides for continuity of organization and greater access by members. The Deputy differs form the position of Assistant Director in that the incumbent fullfills the duties of Director when the Director is not available and serves as an observer at Board meetings.

Please express your interest to the RAC President Geoff Bawden, VE4BAW, at: ve9glf@nbnet.nb.ca

REGULATORY AFFAIRS OFFICER

The Radio Amateurs of Canada is seeking an organized, knowledgeable and diplomatic individual to undertake the role of Regulatory Affairs Officer. This is a senior executive level position reporting to the President. The position has a key role in managing our relationship with Industry Canada. This includes monitoring and analyzing Industry Canada initiatives, generating policy options and advising Industry Canada of RAC’s position on issues of importance to our members.

The core competencies for this position include: the ability to work effectively in a team environment; the ability to generate options and problem solve at a strategic level; and the ability to work successfully with government, our members and third parties in creating successful outcomes in a complex environment.

For further information or to apply contact the President at ve4baw@rac.ca with a copy to the RAC Office Manager at: racgm@rac.ca

TREASURER

The Radio Amateurs of Canada is looking for a Treasurer who is a Chartered Accountant, Certified General Accountant or Certified Management Accountant.

A certification in Amateur Radio is optional. As RAC’s financial advisor, we need someone to provide direction on the accounts and act as liaison with the external auditors. Experience with QuickBooks would be an asset.

Please speak with your friends, there must be a RAC member who either qualifies or can approach someone for this volunteer position. Certification in Amateur Radio is not a requirement for this position. Interested parties please contact the RAC Corporate Secretary at: ve9glf@nbnet.nb.ca

RAC PUBLIC INFORMATION OFFICER

The Radio Amateurs of Canada is seeking the services of a Public Information Officer (PIO). This is a voluntary position operating at the national level.

Candidates with the following knowledge, skills and abilities will be considered:

- Knowledge of the principles and methods of planning and conducting a public information program.
- Knowledge of the media used in public relations.
- Ability to plan and conduct a public information program.
- Ability to write and edit various forms of promotional and informational material and to develop and/or select other types of media such as films and exhibits.
- Ability to discern and collect newsworthy materials, to analyze and evaluate public relations media and methods, and to judge probable public reaction.
- Ability to speak effectively in public.
- Ability to work effectively with RAC Affiliated Clubs and the RAC national Bulletin Service.

Interested parties please contact the RAC Corporate Secretary at: ve9glf@nbnet.nb.ca

Linda Friars, VE9GLF – RAC Acting Corporate Secretary

All Things Digital

Amateur Radio for the 21st Century

009

Robert C. Mazur, VA3ROM
E: va3rom@gmail.com
W: http://my.tbaytel.net/va3rom

MONITOR AND TRACK AIRCRAFT USING THE AUTOMATIC DEPENDENT SURVEILLANCE – BROADCAST (ADS-B) SYSTEM

Air and marine radio communications are conducted using internationally standardized AM/FM and MF/HF analog voice and digital data systems.

Note: *In Canada, any person (for legal purposes) can intercept and make use of ADS-B signals as they are* ***not encrypted*** *and are considered* ***broadcasting****.*

I would like to thank Elmer Webster of ADS-B Technologies for providing me with detailed information on the ADS-B system, for answering my umpteen questions, for proofreading this article, and for allowing the use of material from his company's website.

Using an inexpensive USB receiver dongle and free software, you can monitor and track commercial aircraft in and around major airports and airways in your area, and even with Internet access only, you can still get started using the free flight tracking websites or programs developed for computers and iDevices.

I like to photograph commercial and military aircraft that "buzz" around my house, camp or wherever, and perhaps you will also enjoy this combination of photography and radio – so read on!

WHAT IS ADS-B?

Put APRS trackers on aircraft, combine with ground digipeaters and igates, and you have the Ham Radio version of ADS-B! By 2020, it will be mandatory (worldwide) for aircraft to have ADS-B Out (transmit) capability anywhere an operating transponder (transmitter-responder) is required, but there are no plans to replace the older type transponders currently in use so aircraft operators will just have to add another piece of hardware to what they already carry.

The purpose of the ADS-B system is to further enhance the aeronautical traffic collision and avoidance system (TCAS) and airborne collision avoidance system (ACAS) by providing everyone (in the air or on the ground) situational awareness of what's happening around them.

ADS-B is in use in Canada (and most parts of the world) and it is rapidly expanding. NAV CANADA (the private corporation that owns and operates Canada's civil air navigation service) has plans for total coverage of Canadian airspace by the decade's end.

From the ADS-B Technology website (with minor edits):

Automatic: it's always on and computer controlled – no human intervention required

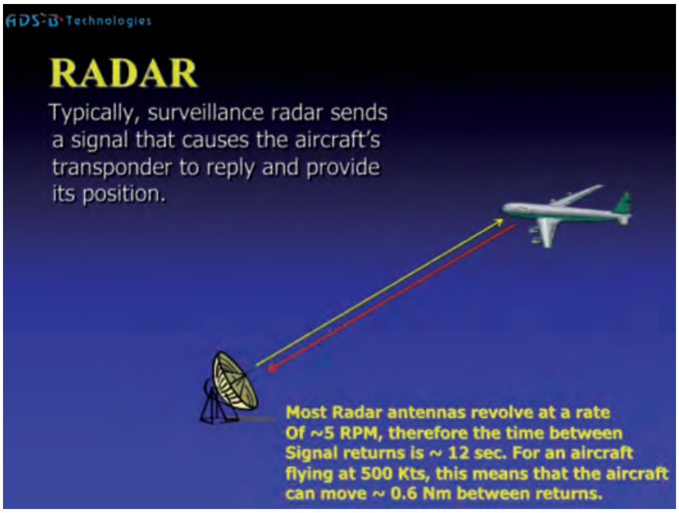
Dependent: depends upon the global navigation satellite system (GNSS) for positional data

Surveillance: provides surveillance services much like radar systems (primary and secondary)

Broadcast: continuously broadcasts flight data (once per second) to other equipped ADS-B aircraft, ground or satellite receiving stations

"Far different from primary or 'skin-paint' radar which works by bouncing radio waves from fixed terrestrial antennas off of airborne targets and then interpreting the reflected signals, ADS-B uses conventional GNSS technology and a relatively simple broadcast communications link for its fundamental components. Also, unlike radar, ADS-B accuracy does not seriously degrade with range, atmospheric conditions, or target altitude, and update intervals do not depend on the rotational speed or reliability of mechanical antennas. In typical applications, the ADS-B equipped aircraft uses an ordinary GNSS (GPS, Galileo, etc.) receiver to derive its precise position from the GNSS constellation, and combines that position with any number of aircraft data, such as speed, heading, altitude and flight number, etc.

This information is then simultaneously broadcast to other ADS-B capable aircraft and to ADS-B ground (or satellite) receivers which then relay the aircraft's position and additional information to Air Traffic Control centres in real time." (See Figures 1 and 2)



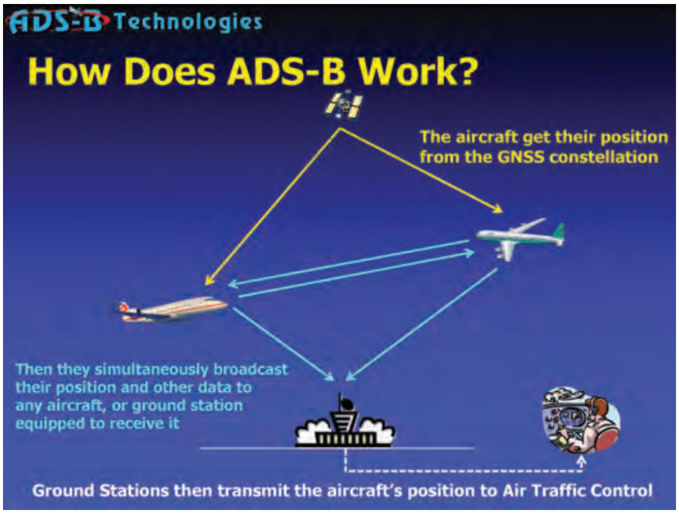
ADS-B Technologies

RADAR

Typically, surveillance radar sends a signal that causes the aircraft's transponder to reply and provide its position.

Most Radar antennas revolve at a rate Of ~5 RPM, therefore the time between Signal returns is ~ 12 sec. For an aircraft flying at 500 Kts, this means that the aircraft can move ~ 0.6 Nm between returns.

Figure 1: How Surveillance Radar Works (Image courtesy ADS-B Tehcnologies)



ADS-B Technologies

How Does ADS-B Work?

The aircraft get their position from the GNSS constellation

Then they simultaneously broadcast their position and other data to any aircraft, or ground station equipped to receive it

Ground Stations then transmit the aircraft's position to Air Traffic Control

Figure 2: How ADS-B Works (Image courtesy ADS-B Technologies)

***Note:** Because this article is only concerned with hobbyist reception of ADS-B signals, I've simplified things so it's not 100% complete in regard to all the technical details.*

Civil aviation transponders (mode A, C, S) transmit on 1090 MHz and receive on 1030 MHz. The mode-S ("Selective") transponder is the one used for ADS-B and there are two types: the short and the extended "squitter". The key difference between other transponders is that mode-S squitters automatically transmit the aircraft's GNSS position (latitude and longitude) and other flight information with the extended squitter transmitting the most details.

***Note:** The term "squitter" is used for a transponder that transmits flight data either randomly or intentionally.*

Air Traffic Control (ATC) uses beacon reinforced radar systems called secondary surveillance radar (SSR) to interrogate (request information from) aircraft transponders by transmitting low-powered, rotating radio pulses, then listening for responses between pulses and any received transponder signals are plotted on the controller's plan position indicator (PPI) display. Interrogated transponders will reply or "squawk" back and, depending on the transponder type, the transmitted flight information will vary in detail from: "Here I am!" to "Here I am, this is what I'm doing, and here is the full flight telemetry". SSR transmits on 1030 MHz using differential phase shift keying (DPSK) that produces a spread-spectrum signal which is immune from interference; the pulse timing, amplitude and length varies for each transponder mode interrogation signal to help SSR target and differentiate among them.

Both mode-S transponders transmit wide-band packet radio signals at 1 Mbps (Megabits per second) automatically (once per second) on 1090 MHz using pulse position modulation (PPM) with a 56-bit message for the short squitter and a 112-bit message for the extended squitter (called 1090ES).

***Note:** Mode-S (Selective) transponders can be directly interrogated by SSR via their unique 24-bit ICAO address and only that selected transponder will reply back instead of every mode-S transponder in the area; this is also used by airborne aircraft collision avoidance systems. The selectively interrogated mode-S transponder then transmits the aircraft identification, GNSS position and basic airframe information.*

Future plans are to extend coverage globally using ADS-B satellite relay receivers that eventually may replace ground stations and perhaps even SSR systems. Mr. Webster told me that Globalstar Inc has just refurbished it's constellation with 24 new satellites (March 2013) that will extend the ADS-B coverage beyond the line of sight (see Figure 3).

ADS-B QUICK START

***Note:** My "All Things Digital" webpage hosts the required free software, along with detailed instructions that expand on the brief ones that follow. You can purchase everything you need to get started (from eBay) for less than $20!*

1) Internet Method:

Point your Web browser to any free flight tracking website – that's it! Many Amateurs and radio hobbyists feed ADS-B received data to such websites. If you prefer, download and try the free iDevice programs (Android or Apple) for handheld ADS-B on the go! But what do you do when you lose your hardwired or Wi-Fi Internet connection?

2) Radio Method:

The Hardware

You'll need a suitable receiver and it's a USB direct conversion receiver (DCR) built around the Realtek RTL2832U chip and R820T (Rafael Micro) or E4000 (Elonics) digital tuners (Figure 4). Designed to receive European format digital broadcast TV (DVB-T) and digital FM audio broadcast (DAB) signals, it was discovered that these could be reprogrammed into wideband, multi-mode software defined radios (SDRs).

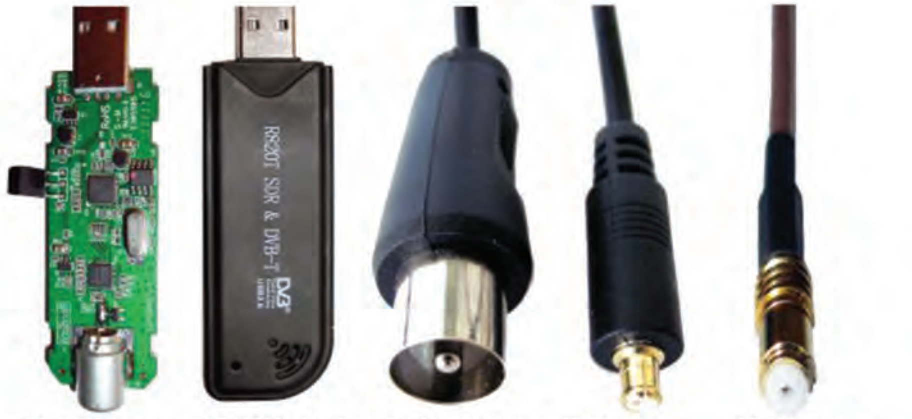
For ADS-B reception, the R820T is highly recommended as it has an extra 7 dB of gain with no breaks in reception (25 MHz to 1766 MHz) while the E4000 covers 52 MHz to 2200 MHz with a gap from 1100 MHz to 1250 MHz (plus or minus). The MDS (minimum discernible signal) averages -116 dBm or 0.35 uV which isn't too shabby for a $20 (or less) receiver!

***Note:** When tuning below 50 MHz, these receivers suffer from severe interference (images) caused by commercial FM radio station signals and an RF low pass filter is required to block those signals.*

Figure 3: ADS-B (2020) Providing situational awareness for everyone (Image courtesy FAA)

The Antenna

The RTL USB receivers are 75-ohm antenna impedance but are supplied with 50-ohm impedance magnetic mount antennas that you can put on a small metal disc such as a pizza pan or paint can lid; but the ADS-B reception range is only about 75 km because the supplied antennas aren't designed for 1090 MHz use. Tuned antennas are preferred, and you can either make a quarter-wave magnetic mount version or (for outdoor use) make an elevated quarter-wave version using three or four tuned radials with 65 mm elements; this greatly extends the reception range (100-150 km indoor and 150+ km outdoor) depending on terrain and line-of-sight propagation (see Figure 5 on the next page).



RTL2832U dongle (without case) E4000 tuner with PAL antenna jack

RTL2832U dongle R820T tuner with MCX antenna jack

IEC PAL connector antenna plug (non-locking)

MCX male antenna connector (locking)

MCX female antenna connector (locking)

Figure 4: RTL Dongles and Connector Views

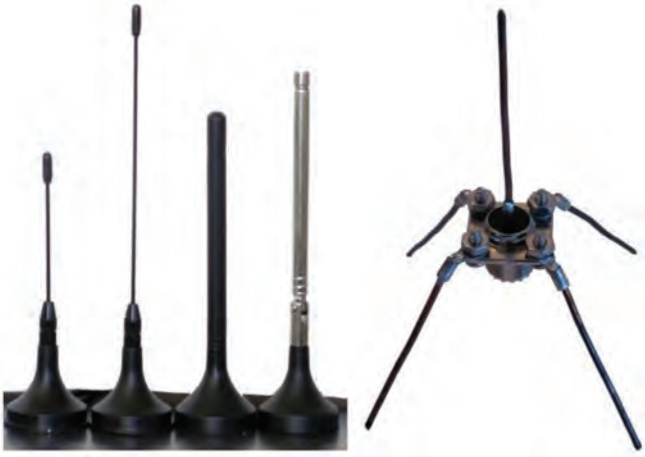


Figure 5: Various ADS-B Antennas

The magnetic mount antennas (50 ohm) supplied with RTL dongles (75 ohm) are designed for DAB FM and DVB-T frequencies (48 MHz to 863 MHz) and are okay, but not great on 1090 MHz (second, third and fourth antennas from left to right in the diagram at left).

You can make one for inside/outside use from solid copper wire for the antenna and radial elements (each 65 mm long) and an SO-239 connector (far right) or purchase dongles that have antennas made from piano wire (second on left) and cut it down to 65mm (first on the left); this will double the reception range.

Receivers with E4000 tuners use the larger, non-locking IEC PAL connector (male plug to female jack) but the R820T use the smaller, locking MCX connector (see Figure 4). Various adapters to BNC, N, etc., are readily available.

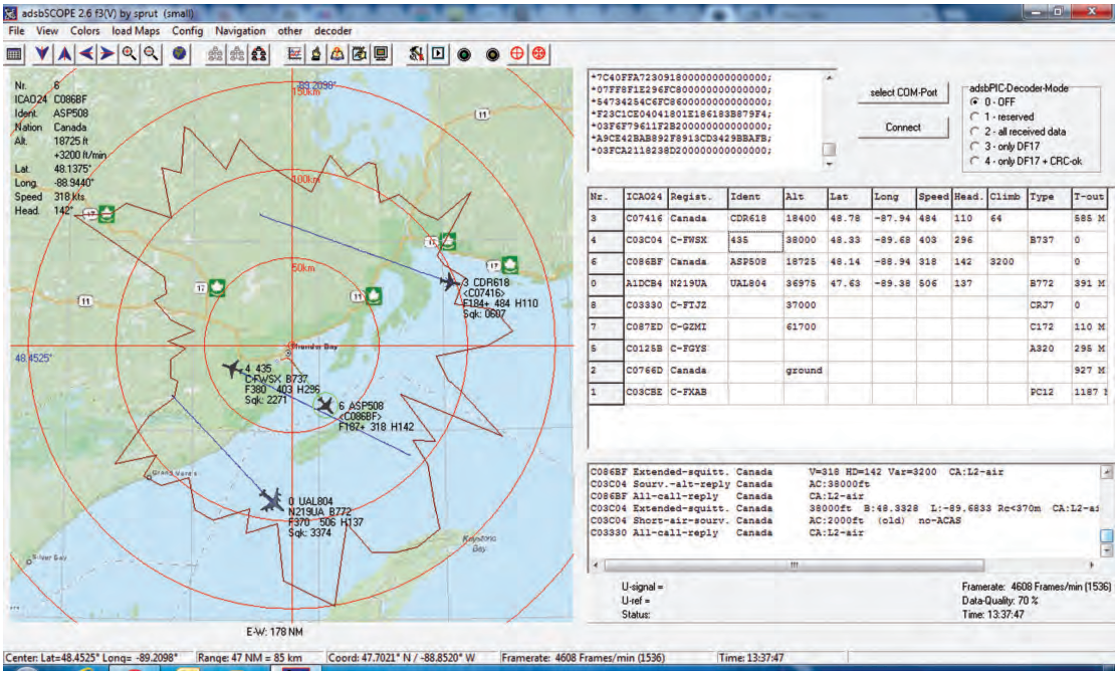
THE SOFTWARE

A free Windows utility program is used to install a custom device driver to reprogram the RTL2832U receiver for SDR use, and a free middle-ware program tunes the internal tuner to 1090 MHz and streams received ADS-B packets to the decoding software.

I can recommend two (Windows-based) programs (I have no access to Linux or Apple computers); a commercial program called "PlanePlotter" (PP) by COAA (*Centro de Observação Astronómica no Algarve*) and a free one called "adsbSCOPE" by "sprut". Any fast Windows (XP and greater) single-core or slow dual-core computer is adequate for either program.

Once registered (paid for), PP provides Internet data sharing with other PP users via the COAA server. The program supports various ADS-B receivers and connection methods such as serial port (RS232/USB) and networking (TCP/IP, UDP, etc.); it has an application programming interface (API) for computer programmers, and other advanced features for the serious hobbyist. PP has a 21-day free trial (try before you buy) but there's no file sharing until it's registered; detailed instructions and an excellent Yahoo user group will help you get started.

Besides being free, adsbSCOPE (see Figure 6) comes with its program source code (Delphi 5/6) and documentation. It also supports various ADS-B receivers, connection methods, and networking support to feed other ADSB websites and servers (it can be programmed as server, too). In addition, adsbSCOPE has some very sophisticated features that are lacking in PP, and for many hobbyists it's all that you'll ever need! I prefer adsbSCOPE because it displays all flight information on one screen and automatically looks up any additional flight data from its internal databases or the Internet.



Nr. 6
ICAO24 C086BF
Ident ASP508
Nation Canada
Alt. 18725 ft
+3200 ft/min
Lat. 48.1375°
Long. -88.9440°
Speed 318 kts
Head. 142°

```
*7C40FFA72309180000000000000;
*07FF8F1E296FC800000000000000;
*54734254C6FC8600000000000000;
*F23C1CE04041801E186183B879F4;
*03F6F79611F2B200000000000000;
*A9CE42BAB892F8913CD3429BBAFB;
*03FCA2118238D200000000000000;
```

adsbPIC-Decoder-Mode
- ● 0 - OFF
- ○ 1 - reserved
- ○ 2 - all received data
- ○ 3 - only DF17
- ○ 4 - only DF17 + CRC-ok

Nr.	ICAO24	Regist.	Ident	Alt	Lat	Long	Speed	Head.	Climb	Type	T-out
3	C07416	Canada	CDR618	18400	48.78	-87.94	484	110	64		585 M
4	C03C04	C-FWSX	435	38000	48.33	-89.68	403	296		B737	0
6	C086BF	Canada	ASP508	18725	48.14	-88.94	318	142	3200		0
0	A1DCB4	N219UA	UAL804	36975	47.63	-89.38	506	137		B772	391 M
8	C03330	C-FTJZ		37000						CRJ7	0
7	C087ED	C-GZMI		61700						C172	110 M
5	C0125B	C-FGYS								A320	295 M
2	C0766D	Canada		ground							927 M
1	C03CBE	C-FXAB								PC12	1187

```
C086BF Extended-squitt. Canada      V=318 HD=142 Var=3200  CA:L2-air
C03C04 Sourv.-alt-reply Canada      AC:38000ft
C086BF All-call-reply   Canada      CA:L2-air
C03C04 Extended-squitt. Canada      38000ft  B:48.3328  L:-89.6833 Rc<370m  CA:L2-a
C03C04 Short-air-sourv. Canada      AC:2000ft  (old)  no-ACAS
C03330 All-call-reply   Canada      CA:L2-air
```

U-signal =
U-ref =
Status:

Framerate: 4608 Frames/min (1536)
Data-Quality: 70 %
Time: 13:37:47

Center: Lat=48.4525° Long= -89.2098° | Range: 47 NM = 85 km | Coord: 47.7021° N / -88.8520° W | Framerate: 4608 Frames/min (1536) | Time: 13:37:47

Figure 6: adsbSCOPE

A single screen display is used by adsbSCOPE along with different sized and shaped icons to differentiate aircraft, and everything is displayed in real-time. The zigzag pattern is the maximum recorded ADS-B reception around my location (centre circle in crosshairs). I'm using an RTL dongle receiver with an R820T tuner and tuned quarter-wave magnetic mount (indoor) antenna.

The map (left) displays the plotted ADS-B aircraft; upper right are the received (raw) packet frames (hexadecimal); a data table (sorted by position) contains all current aircraft decoded information; the bottom right section shows the decoded raw packet frames.

Note: *Aircraft in the data table with missing positions and other data are usually mode-C transponder replies to SSR interrogation (identification and altitude) and adsbSCOPE inserts any supplementary data it can except for position. Some can be incomplete ADS-B messages (the 1090ES requires up to five separate transmissions for a fully populated extended message).*

……

CHARTS AND MAPS

Both adsbSCOPE and PP can download simple satellite maps, Google Maps and the Open Source Maps (OSM) for their pseudo-PPI displays, and you can also create your own.

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Super Titan Towers
Up to 190 feet Self-supporting
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ROHN
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Email: macfltd@kos.net
<www.macfarlaneelectronics.on.ca>

MY FINAL

Okay, that's a lot of material to digest and hopefully it's not too overwhelming.

I have posted quick start (but detailed) instructions on my website and you can email me for additional help.

In the next column, we'll look at an interesting Amateur Radio digital data mode called "WSPR". It's not designed for making two-way contacts but intended for testing propagation, antennas, receivers or transmitters, and collecting and analyzing data. – 73

REFERENCES AND RESOURCES

ADS-B

<http://ads-b.com>

<http://tinyurl.com/burbh4r>

<http://tinyurl.com/bsk6xs2>

<http://tinyurl.com/ydt57bo>

<http://tinyurl.com/bmlqdq8>

Cheap and Easy SDR (Robert Nickels, W9RAN)

<http://tinyurl.com/blsg2or>

SOFTWARE

(Android Market and Apple iTunes)

FlightAware, Plane Finder, Flightradar24, FlightView, FlightTrack, Flight Tracker

(Windows)

<http://tinyurl.com/bnvnqyc>
<http://tinyurl.com/cj9onau>
<http://tinyurl.com/ya8dq26>
<http://tinyurl.com/bmhhdb4>
<http://tinyurl.com/brfy2gn>

SSR

<http://tinyurl.com/meohaz>

TCAS

<http://tinyurl.com/km9v7>

Tracking Websites (just a few)

<http://www.flightradar24.com>
<http://planefinder.net>
<http://planetracker.net>

VA3ROM: All Things Digital

<http://tinyurl.com/d8nle3l>

IN MEMORIAM: GEORGE WILLIAM SANSOM, VE3GWS

George Sansom, VE3GWS, passed away peacefully at home in Kingston, Ontario surrounded by the love of his family, on Monday, May 20 at the age of 67.

George was the beloved husband of 45 years to Myrtha and loving father of Diana Sansom (her husband Mike Langevin) of Brooklin and the late Kevin Sansom. He was affectionately known as "Grandad" to his grandchildren, Ethan and Jocelyn.

When George became the Editor of TCA in June 1987 (until August 1993) he described himself as follows:

"I was in the RCAF for 20 odd years; I've been a 'ham' since 1974 (I too got my ticket under the guidance of Dick Harlow, VE7BRH), old calls were VE7DVM, VO2BH and, since 1979, VE3LXA. I've been a part-time DJ/news reader/news writer on a number of radio stations in Canada and Europe and was the producer of a Cablenet TV program for two years. My prime job is an Electronic Maintenance Supervisor with an electronics firm. My favourite things are family, travel, boating, computers, and building small electronic devices (which I never seem to have enough time to complete."

George became the Public Service / ARES columnist for TCA in June 1998 and he served as columnist until the July-August 2006 issue. In the bio that appeared along with his first column, George described himself as follows:

"George W. Sansom, VE3GWS, is a retired Canadian Armed Forces (RCAF) Sergeant who now works for the Ontario Provincial Police as a Telecommunications Technologist in Eastern Ontario. He and his wife Myrtha have settled near Perth, ON. As a military Radio Technician, George was very involved with Emergency Communications.

During his posting to Goose Bay, Labrador he was tasked to provide communications for a British Ambassador on a fishing expedition at a remote camp on the eastern coast of Labrador. The flight through the Mealy Mountains in a single-engine Otter under the command of a former CF-104 pilot and the resulting adventure is one of George's favourite stories.

His involvement with ARES began in Kingston, Ontario during his term as President of the Kingston ARC. He began a fledgling ARES group which has now grown to one of the most active in Ontario under the leadership of Bob Boyd, VE3SV, and Bill Mason, VE3NFU."

George was also actively involved with Radio Amateurs of Canada. He was one of the six negotiators chosen to begin the amalgamation of Canadian Radio Relay League and the Canadian Amateur Radio Federation (CARF). He also served as Secretary of CARF, and as Treasurer and President of the former CARF Publications, which previously published TCA.

We'll miss you George.

QRP AND BIKING

Bill Kirby, VO1BB

This project came about from my QRP portable operations and my enjoyment of bike riding. Over the past few years I have been doing some QRP operating in the hills behind my house in St John's, Newfoundland. Although QRP is not for everyone I do enjoy it a lot. It is more gratifying for me to work that rare DX on a wire strung into a tree and trying to break into a pileup with just 5 watts of power.

When conditions are good you can work just about any station you want. You might have to make a few more calls but to me its worth it.

Since the beginning of 2012 I have worked and confirmed 28 US States, five Continents and about 50 DX countries.

Last summer, I was taking all of my gear and putting it into a backpack and going to the field. The station consisted of a Yaesu FT-817, a small gel cell and, of course, a wire antenna strung up in the trees. The FT-817 rig is amazing. For just a little rig it can do a lot of stuff, but one of the main reasons I bought it was the low power consumption in receive and transmit. A gel cell would last a long time.

Typically, I would hike about 30 minutes from my house to my favourite place in Airport Heights across from the St John's International Airport. There is quite a view from there as it overlooks the airport, Signal Hill and of course the Atlantic Ocean.

It was usually hot and dry so there was no need to work in the rain and some extra items were needed: water, sunscreen and fly dope. If I stayed longer perhaps I would also need a light lunch and a jacket.

Needless to say the backpack was getting up there in weight.

I started doing some research on the Internet seeking ways to carry all of my gear. It seemed that most QRP portable stations were simply put into a backpack. It looked like I was going to need a *bigger* backpack. This was not looking good. I needed an easier way to carry my gear.

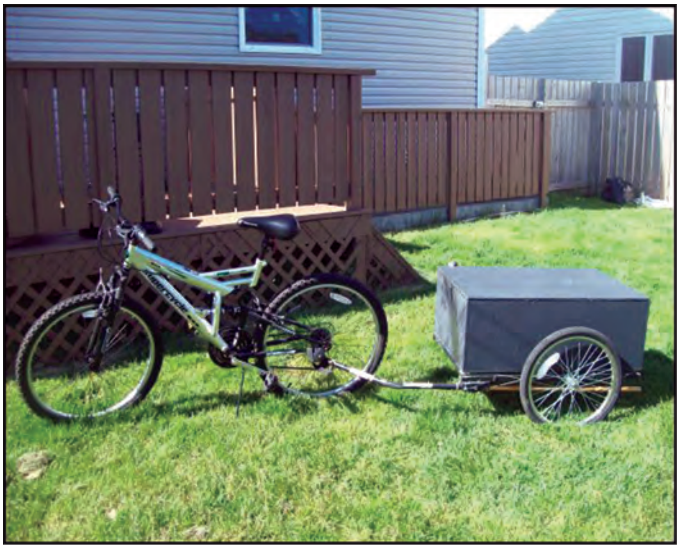
During my research I also saw some QRPers carrying the equipment on bikes. Neat idea but my bike couldn't support the bike racks and bags. It has shock absorbers on the front and back, but the older bikes have solid frames and you can attach the racks and bags to them.

One evening I happened upon an ad for a child's bike trailer. The ad said the trailer could carry two children up to 100 pounds. Then the light went on! How about 100 pounds of radio gear? Maybe a bit of overkill but it was something to be considered.

I dialed the number and was in luck. The lady still had the trailer, but she said the cloth was in rough shape. That was not a problem. I had an idea.

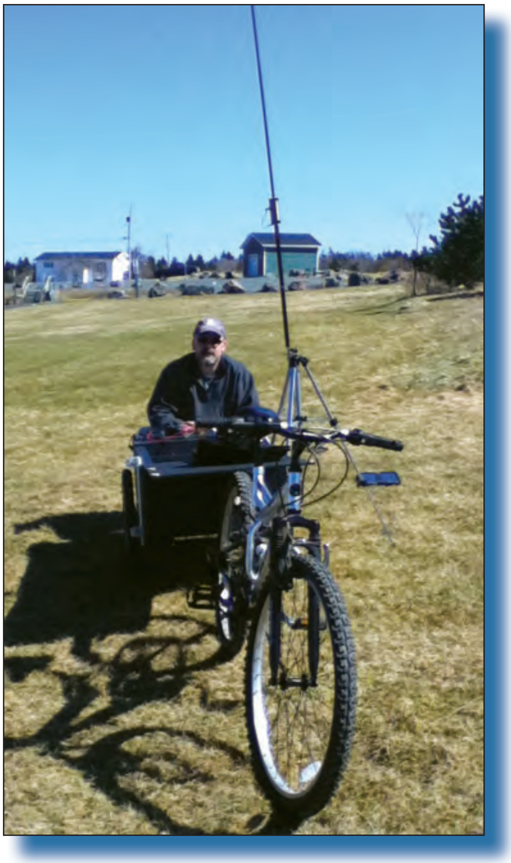
I took the trailer home and stripped it down to the chassis. It was made of half-inch diameter tubing. Now I had something to work with. I went to my local hardware store and picked up some quarter-inch plywood and went to work. After building the box, I put in some compartments to hold and sort all my gear. It would have been easier with a table saw and brad nailer but the pocket knife and sledgehammer worked great.

At this point, the trailer was 18 inches high, 24 inches wide and 42 1/2 inches long, and weighed 20 pounds. The top of the box forms an operating table. After I added my 15-foot telescopic mast and some paint I was in business. Things started to come together.



Now that I have the trailer I can carry more gear to make my QRP Portable Station even more enjoyable.

I carry two 1.5 watt solar panels to charge my 7 amp gel cell. This usually keeps the battery at full charge and my FT-817 can put out a full 5 watts.



The rest of the kit followed:

- A modified tripod for my my HF Buddipole
- A homebrewed antenna for 2m; that sits on top of my 15 foot mast
- A small chair to sit on and copy down my entries into the log
- A cooler with ice packs
- Sunscreen
- Fly dope

I can even put my tent in there. I can carry just about anything I need to make my portable operations just as good as at home.

The next step is to replace the tripod with more masting attached directly to the trailer.

So if you're on the radio this summer and hear a weak station, have a listen. It could be me. I hope to work you this summer.

I was first licensed in 1997 with my Basic, then in 1998 Advanced Licence and in 2000 Code. In 2007 I got my Certified Emergency Coordinator Certificate through Radio Amateurs of Canada.

My main interest as of late has been CW QRP and some portable work with some DX chasing of course. I also enjoy QRP kits, and some homebrewing. I have a solar powered station. I am married and have two daughters. I have been employed in the construction industry for a number of years.

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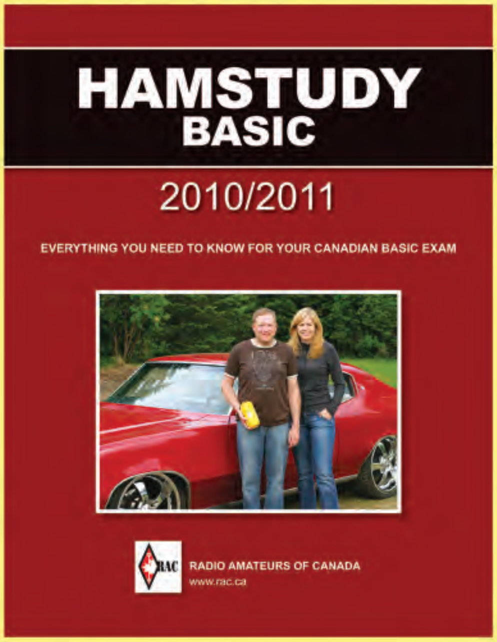
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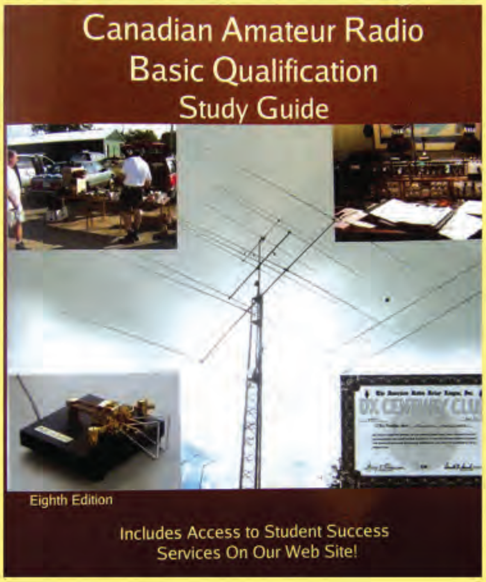

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PUBLIC SERVICE / ARES

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709-364-4741
vo1dtm@rac.ca

It would appear that spring has finally arrived – and in spring all Amateurs in North America start to think about Field Day. This annual event allows those of you who want practise in getting your equipment working in an emergency-type environment, the opportunity to hone your skills and antennas. Mark June 22 & 23 to get out and participate.

Spring heralded the Raisin River Canoe Race in Eastern Ontario. The Seaway Valley ARC were there to ensure everything went smoothly. They were hampered only by their small numbers, something we can all relate to I am sure. The Kitchener-Waterloo ARC carried out some tabletop exercises and have shared with everyone their problem areas. Thanks for sharing, I am sure everyone will take note so as not to recreate your issues with their own exercises. The Ontario South Section Manager got things in his Section off to a great start with a Leadership Seminar; the turnout was good with lots of lively discussion. I personally came away with many good comments and suggestions to take into consideration in the ongoing development of NARED.

Everyone should mark their calendars for the 2013 SET Scheduled for October 12-13 and get involved in local or Section activities. Every bit of experience will go a long way when the flag does go up. I am sure all of us were pleased to see four young new Amateurs who were recent graduates of the Winnipeg ARC course. These young men are involved in robotics and high altitude balloons so I am sure they will bring a lot of new interest and enthusiasm to the Winnipeg area. Congratulations also go out to the Nanaimo ARES group for their volunteer service pins; 89 years of service is not just a drop in the bucket. Great work!

Pat Barrett, VE3RNH – National Amateur Radio Emergency Database Manager

ONTARIO ARES GROUPS PROVIDE SUPPORT TO THE RAISIN RIVER CANOE RACE

AEC Doug Pearson, VE3HTR
Stormont Dundas and Glengary ARES

On Sunday, April 14, the Seaway Valley Amateur Radio Club (SVARC) Inc. and the Stormont, Dundas and Glengarry (SD&G)-ARES group assisted our local St. John Ambulance Brigade 103, with communications for the Raisin River Canoe Race.

The race is organized each year by the Raisin River Conservation Authority. This was the 41st race and was won in a time of 02:21:38.

While St. John Ambulance have their own two-way radios, they are 5 watt VHF portables, which severely limit their range. This is not a problem for most of the Public Duty events they attend as most are confined to a small geographic area. However, the Raisin River Canoe Race – stretching as it does from St. Andrews West to Williamstown, a distance of 29 kilometres – is beyond their simplex VHF communications capabilities.

Our Amateur Radio group filled the gap again this year, the second year we participated, by placing operators and VHF/UHF equipment in three St. John Ambulance vehicles and the seven accessible points (bridges) along the race course. In addition, our event leader, Doug Pearson, VE3HTR, used his vehicle as a mobile command post.

By using UHF repeater VE3MTA in Bonville, as well as a crossband repeater in Williamstown, seamless communication was provided to all along the entire route. This event was also an opportunity to test for the first time the crossband repeater capability built into the Yaesu FT-8800 dual band VHF/UHF transceivers, one reason for them being chosen for the core of our ARES radio fleet. Credit for this decision goes to Tim Smith, VE3HCB (SK) who made it an essential feature needed for ARES operations where repeater coverage was inadequate. Some technical lessons were learned, one of which is that CTCSS on receive is absolutely essential for reliable crossband repeater operation. Amateur Radio operators supporting this event were: Bert, VA3TL, Stan, VA3JSF, Jim, VA3SPY, Joe, VE3ADB, Al, VE3DMR, Elizabeth, VE3EZH, Ed, VE3FHI, Doug, VE3HTR, Hal, VE3HWG and EC Earle, VE3IMP.

While we could have used additional operators, the St. John Ambulance was very glad and satisfied with our help. Some volunteers stood out on a cold and windy bridge for much longer than they should have for health reasons.

Operators at the various checkpoints (bridges) had to be quickly relocated for coverage of other downstream checkpoints, and some sites (Williamstown was one) could have benefited from coverage early in the race, but we had no one available until much later, leaving the St. John Ambulance contingent in Williamstown very much "in the dark" with regard to other aspects of their operations.

Stormont, Dundas & Glengarry ARES group members

Front (from left): Earle DePass, VE3IMP (EC), Al Ross, VE3DMR, Stan Fortune, VA3JSF and Joe Scott, VE3ADB.

Back row: Elizabeth Halliwell, VE3EZH, Ed Halliwell, VE3FHI, James Brelsford, VA3SPY and Doug Pearson, VE3HTR.

Missing: Hal Green, VE3HWG and Norbert Lussier, VA3TL.

Coverage was also very limited in the "Patrol Sectors" between Checkpoints, again because of lack of volunteers.

We may also consider installing dual-band Amateur antennas on the Mobile First Aid Posts (MoFAPs), former provincial ambulances, as their configuration (an aluminum body which is higher than the steel driver's cab) does not favour use of a magnetic mount antenna. But no ARES exercise runs perfectly, and every one of them is an opportunity to learn how we can do better next time.

Following the conclusion of the race, a joint St. John Ambulance / Amateur Radio debriefing meeting was held at St. John Ambulance HQ in Cornwall. This provided an opportunity to learn from each other how to improve operations in the future.

Thank you to all who helped; hopefully more people will be available next year.

More photos can be found online at: http://home.cogeco.ca/~ve3htr/2013%20Canoe%20Race%20Photos/

ONTARIO SOUTH ARES LEADERSHIP SEMINAR

Ian Snow, VA3QT – RAC Ontario South Section Manager

Front (from left): James Davidson VE3TPZ, Worth Chisholm VE3BTC, David Knight, VE3PMT, Tim Eaton, VE3RTE, Bob Droine, VE3LKD, Bill Hoad, VE3DPG and Larry Gorman, VE3LGN

Back: Ian Snow, VA3QT, Wayne McLean, VE3WWM, Bill Park, VE3WMP, Dave Beckett, VE3HKO, Carlo Salvitti, VA3CSS, Nelson Jenking, VA3NDJ, Pat Barrett, VE3RNH, Mike Lukasik, VA3MD, Alle Brander, VE3CWL, Doug Elliott, VA3DAE and Scott Carter, VE3CGN

Missing: Dave Colvin, VE3ZDC (Manager Emergency Operations) and Paul Thompson, VA3PRT (photographer)

An ARES leadership seminar was held in the London Emergency Operations Centre on April 20. The objective was to report on Field Organization renewal efforts, the Province of Ontario Interoperability Task Group (POINT), and the National Amateur Radio Emergency Database (NARED). It included four discussion groups – Section Organization, Communications Interoperability, NARED, and Digital Communications) whose aim was to provide the Section Manager with feedback and direction.

Dave Colvin, VE3ZDC, the London Emergency Operations Manager, provided a comprehensive briefing on how the introduction of the Incident Management System and communications interoperability was influencing operating practices and organizational planning.

Ontario South Section Manager, Ian Snow, VA3QT, described the work of a national working group which is preparing a draft training specification that will subsequently lead to recommended training objectives for each ARES job and eventually on-the-shelf lesson packages.

NARED Coordinator Pat Barrett, VE3RNH, outlined the original purpose of the database (rapidly identify Amateurs with the skills, equipment and mobility to deploy in response to major emergencies or disasters) and how this database may be further adapted as an online tool for individuals to record their individual training certifications.

A sincere thank you to the London ARES group and EC Doug Elliott, VA3DAE, for hosting us, and to the City of London CEMC Dave O'Brien for permission to use their ultra-modern Emergency Operations Centre (EOC).

KWARC: ARES IN ACTION

Larry Gorman, VE3LGN
ARES Coordinator – Kitchener-Waterloo ARC

You can never be overprepared when it comes to emergencies. The focus of the Kitchener-Waterloo Amateur Radio Club's March meeting was Emergency Message Handling. Four table groups were established using facilities on both floors of the St. John Ambulance Training Centre.

Since the corresponding groups were totally separated – with half of the teams upstairs – it made for a somewhat more realistic atmosphere. When problems arose, you couldn't just call over or readily drop by.

The messages, relayed to Regional officials, Red Cross workers and St. John Ambulance First Aiders, etc were varied and sometimes unusual.

Problems soon surfaced, in spite of the fact that half of the operators had previous Simulated Emergency Test experience. This is the reason why one session is not really enough when it comes to message handling for Third Party sourced messages.

Suggestions from the operators were both positive and helpful. Some of the problems identified are included below.

1) Attempting to send too many words at once, which created recipient confusion.

2) Proper Radiogram completion: Trying to insert non-core message data, and finding where it fit. Message time, source, precedence, priority, etc may be required by officials after an emergency to verify actions and authorizations.

3) Delays due to trying to make sense of a technical message. (Which needs only be understood by the official recipient.)

4) Transcribing the message in readable script. The exact wording may be critical. While you may clearly understand your own script, ultimately it must be read by a third party The solution is usually to print in capital letters ("upper case block").

4) Table task sorting. In an exercise it always takes a while for the team members to sort out their individual table tasks.

Our table teams consisted of three personnel. One to operate the radio and dictate the message, one to transcribe, and one to deliver to the exercise control table. As the exercise progresses all team members rotate throughout each task and get to observe the whole process.

One evening a year is probably not enough for us to develop a high degree of efficiency.

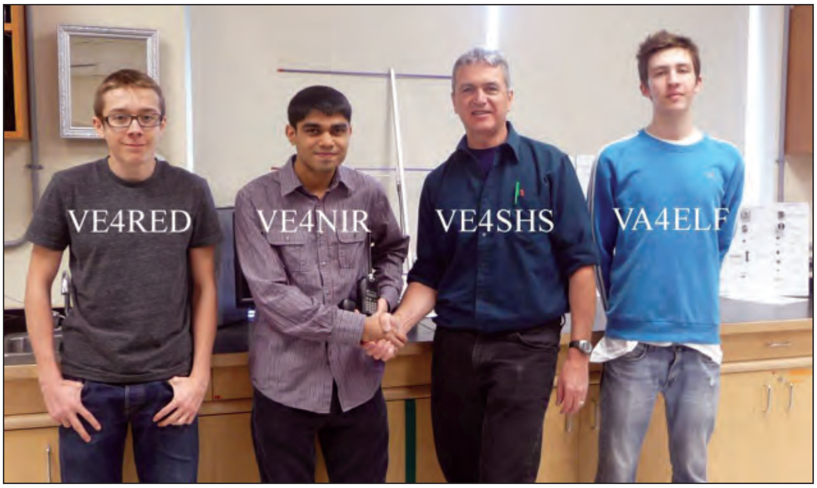
It was heartening to see several new club members as well as other first time participants. We welcome anyone who is interested to come out and participate.

NANAIMO ARES GROUP PRESENTATIONS

On April 25, the Nanaimo ARES group known as the Coast Emergency Communications Association (CECA)held their monthly meeting in the Nanaimo Emergency Operations Centre. In addition to the regular monthly meeting activity the group had two guests: Karen Lindsay (the Emergency Program Coordinator for the City of Nanaimo) and Jani Drew (the Emergency Program Coordinator for the Regional District of Nanaimo). These two ladies presented the members of CECA with service pins.

These pins are issued by Emergency Management British Columbia to volunteers in “appreciation of years of dedication, caring and commitment as a Volunteer in the Public Safety Lifeline of British Columbia who serve their Province.” These pins represented a total of 89 years of service. Congratulations to everyone involved .

CONGRATULATIONS SHAFTESBURY STUDENTS



Last spring, the Winnipeg Amateur Radio Club (WARC) ran an Amateur Radio Certification Course at Shaftesbury High School. The above photo shows our newly certified students – Jake Booth, VE4RED and Alex Poersch, VA4ELF – along with Nishadh Rathod, VE4NIR and Teacher Robert Striemer, VE4SHS. Nishadh received his Amateur Radio certification when he was a Grade 10 student.

As a longtime member of the Shaftesbury High Altitude Robotics Project (SHARP), Nishadh was presented with an ICOM handheld transceiver donated by a generous Winnipeg Amateur Norm Roll, VE4EO. “Thanks Norm!”

Amateur Radio is a key component of SHARP. It is used to track SHARP high altitude balloons (http://aprs.fi) but it can also provide a data link to a robot.

RAC SIMULATED EMERGENCY TEST

The RAC Simulated Emergency Test (SET) is set for October 12-13.

This nationwide exercise is the chance to test your emergency operating skills and the readiness of your communications equipment and accessories in an emergency-like deployment.

RAC Field Organization Leaders at the Section and local levels, along with many other volunteers who are active in public service and emergency communications, are developing simulated emergency scenarios in consultation with served agencies.

To find out how you can step up and be a part of the local or Section-level activities, contact your Section Manager. You can find contact information for all RAC Section Managers on page 4 of any issue of The Canadian Amateur. Additional contact information may also be found on the RAC website.

The Amateur Radio Emergency Service (ARES) and the National Traffic System (NTS) and members of the RAC Field Organization will participate and practice emergency operation plans, nets and procedures.

The RAC Simulated Emergency Test is an ideal opportunity to demonstrate the capabilities of Amateur Radio. Community and public service agency officials will learn first-hand by taking a role in the SET and by providing an objective evaluation afterwards from their perspective. Have designated stations originate messages on behalf of served agencies. Test messages may be sent simulating requests for supplies. Simulated emergency messages (just like real emergency messages) should be signed by an authorized official.

Formulate your plans around a man-made or natural simulated disaster. Possible scenes could be; a flood, a serious fire, a severe ice storm, a missing person, a serious accident (automobile, bus, aircraft), a broken gas line or any other imaginable disaster. Elaborate on the situation by developing a scenario to be implemented during the SET.

In consideration of local and Section-wide schedules with agencies and many others, RAC Field Organization Leaders have the option of conducting their local or Section-wide SET on another weekend in the fall season. Check with your local RAC Field Organization leadership for the exact date in your particular area. Your help is needed and the RAC SET is a great way to get involved in emergency communications.

For more information on guidelines, preparing and reporting for a SET, forms for RAC Field Leaders are posted on the RAC website at:

http://www.rac.ca/en/rac/public-service/ares/simulated-emergency-test/

TCA

HAM SEEDS: CARE & NURTURE: A MARITIME ADVENTURE

Richard Sheridan, VE4ESX

Here in Winnipeg, it's Louis Riel Day – Family Day in the rest of Canada – and a winter storm is blowing. This story took root in similar weather back in January 2011, the year I would be celebrating my 65th birthday. It was a Bucket List kind of year. I wondered if this could be the year my wife and I might sail to the very top of Lake Winnipeg. Without any hesitation Lisa agreed, the idea was born, and plans were made.

Lake Winnipeg, the world's 10th largest fresh water lake, lies 50 kilometres north of Winnipeg and has a distinct hourglass shape when viewed on a map, with North and South Basins separated by the Narrows. Its drainage area includes Ontario to the east, Alberta and Saskatchewan to the west, and north and South Dakota and Minnesota in the USA. With an average depth around 35 feet, and prevailing northwest winds from north to south, the 436-kilometre long Lake Winnipeg can become very dangerous very quickly. The Lake has a surface area of 24,500 square kilometres.

Safety and comfort on the lake are directly related to the prevailing weather conditions. Weather Radio and the Canadian Coast Guard (CCG) offer radio coverage on most, but not all of the lake. Four strategically located linked CCG repeater radios, monitored and controlled remotely by the Thunder Bay Detachment, provide coverage. They are limited to Channels 16, 19 and 26 marine VHF. The Coast Guard operates a Rescue Center from Gimli, Manitoba, and Search and Rescue by Hercules aircraft from Trenton, Ontario.

The North Basin repeater is located at Grand Rapids on Long Point. We planned many overnight stops on the way north and again on the way back, including George Island, some 50 miles southeast from Grand Rapids. George Island is extremely remote, yet has beautiful sandy beaches and is surrounded by crystal clear water. Twice, we have extended our stay for up to a week.

There is an abandoned lighthouse keeper's house there, now replaced by a fully automatic new light and tower. Also abandoned is a commercial fish station.

Other than the now dilapidated docks, there are no facilities there whatsoever. Everything we might need for the three to four weeks away must be procured, stored and taken with us on the boat.

My need to get current weather information was most critical at George Island as we are in the middle of the North Basin and a day's sail from the next overnight stop. Considering tower locations and transmitter antenna heights, I determined we would not be able to receive weather reports at George Island. So why not try HF?

I'm very fortunate to be a part of a daily ham ragchew at a Timmies here in Winnipeg. In the group I found Walter, VE4VB, for designing, building and testing the required antennas. Ellis, VE4AJO, could give me the marine weather forecast just ahead of the Manitoba Evening Phone Net at 1900 hours local time each day on 3.747 MHz.

Walter found some suitable wire in his junkbox and we built 80 and 20 metre dipoles and used my antenna analyzer to tune them. We built a 40-foot feed transmission line that could be used by either antenna. It was determined that a simple wire dipole – light, easy to store and deploy – would be best to reach Winnipeg in the Near Vertical Incidence way. The KISS principle prevailed. I also built a 2 metre marine VHF cubical quad in a knock down style for an additional test from George Island. All this radio equipment had to be stored on the boat along with all the food, drinking water and other supplies.

Having arranged an extended time away with my business customers, preparations were made for a mid-July departure.

We had both been to George Island before but never to the top of the Lake. I didn't know anyone who had gone there. This was going to be my biggest adventure and I thoroughly enjoyed all the planning it required. It was a perfect bucket list choice.

Initially, we had another boat with us but they decided to drop out at Princess Harbour after the first week, as they were not comfortable with the rough weather. My wife and I decided to carry on alone.

Our first stop was Biscuit Harbour, a seaplane base and airport complete with a restaurant. We reached there sailing in dense forest fire smoke. Next stop was Princess Harbour, a small fishing port, very isolated but our dear friends, Brenda and Ed Anderson, the owners, always make us feel very welcome. They don't get much company. From here, Lisa and I sailed north alone!

Swampy Harbour, on the northwest tip of Berens Island, is another abandoned harbour with no facilities or docks and so we anchored in the bay protected by 10-foot high sand dunes from the very big and very open North Basin. The next leg was to set a course for George Island and required being out of sight of land for some hours. For ease of navigation I had bought a chart plotter, which works so well I wish they had been available a long time ago.

Our boat is a 27-foot Jenneau sailboat, with marine VHF at masthead height, up 35 feet, and a line-of-sight range approximately 10-15 miles. To be HF capable and not wishing to go to any great expense or work, I decided to take my Icom IC-706MKIIG and clip it on to the boat battery bank for power, using the doubly fused Icom IC-706MKIIG power cable. For house batteries I have two 6-volt, 300 ah golf cart gel cells wired in series. It's very important to doubly fuse here as there is a ton of power to drive a "short" and toast the rig, or worse. Raising the 80m dipole from its feedpoint was accomplished using the boat halyard up to masthead height. The legs were run out, one side tied to the highest point of the old fish station, and the other out to the water's edge – a kind of Inverted Vee. This setup, while quick to deploy, can only be done in harbour so we would assemble the station each day, complete the schedule with Ellis, and then take it all apart again for the night.

My preferred operating position was topside, due to the high interior cabin summer heat. Since the rig was a temporary daily deployment I could set up inside or out as required.

Did I mention my wife is much younger than I and so she did the required climbing to secure the 80m leg up high? What a girl!

A day or two after arriving here we celebrated our 30th wedding anniversary with not one but two bottles of champagne. Hence, we were forced to take a couple of layover days.

From here it was all new territory. Heading north we rounded Long Point. If you are looking at a map of Lake Winnipeg, Long Point is a 35-mile long projection out from the west shore. We anchored for the night in a wilderness anchorage about an hour east of Grand Rapids after a very long day. Not too far off lay the half-sunken hulk of a very old wooden boat, looking rather ominous.

With good weather we headed directly north and looked around Limestone Point, Limestone Bay and Eagle Island for a suitable place to tie up. This whole area has no one in it and is totally wild and natural. Also if I were to run aground and need help we would be SOL. With caution prevailing we turned southward toward Grand Rapids arriving there exhausted around 2200 hours.

Now picture this: Manitoba had been in a very serious flood situation and Lake Winnipeg was well above normal depth. Grand Rapids is where the Saskatchewan River enters the lake and the current here is very strong; also the docks at the fish station were under water so we had nowhere to tie up. By moving out of the current stream into a small corner we dropped anchor but it wouldn't hold as the bottom had been scoured clean to the rock bed by the current. Relying on just the weight of the anchor, we dropped in our bunks totally wiped out.

Initially, I was worried about our ability to steer out of the river mouth due to the boiling appearance of the stream and the need to have water flow over the rudder for steerage and control. With power maxed out we made it safely, stopping overnight in that same Bay. Rested, we set out for George Island via Long Point.

What a sail! The wind was perfect, the sun was shining and we were flying along at maximum speed heading south.

The next morning we awoke to the sound of voices. Lo and behold there was another boat, *White Magic*, tying up to the fish dock in our harbour at George Island. I knew the skipper, Leor, who introduced us to his vacationing brother from Israel. Since they were going to go to the top of the lake, we passed on all we had learned from our venture that we thought might help them. In the discussion the HF radio came up. Leor said he would very much like to get a message back to his wife in Winnipeg telling her that he was safe.

We dutifully relayed this through Ellis, VE4AJO, at sked time. Leor was totally intrigued by our ability to communicate with his wife back in Winnipeg, using just a piece of wire. And at that moment the "ham seed" got planted.

A glance at VE4AJO's station log reveals the traffic I sent for Leor's wife on August 4, 2011 at 2340h Z on 3.747 MHz.

We made a total of 13 contacts between July 11 and August 12, 2011.

After the trip was over, an interest in Amateur Radio developed in our little sailing club, starting with Leor, and then followed by two more sailors. Back at the ragchew at Timmies, David, VE4DAR, offered to help organize another Basic Amateur Radio Course. I went to local sailing groups to see how much interest there was. Jim, VE4SIG, also put ads on the social media sites for interested parties. Finding enough interest to start a course, David became Chief Instructor and a full-blown course was underway.

I would be very remiss if I didn't pause here to recognize the teaching efforts of David, VE4DAR. He has taught teaching skills to all the new instructors and has coordinated the schedules and facilities. David has added the new Basic Short Courses to the agenda and has already run four of the courses. Let's not forget the many instructors who have also volunteered their time and effort for free, and shared their personal wealth of Amateur Radio knowledge.

Leor went on to earn his Basic Amateur Radio Operator Certificate and became a very proud and active VE4DXR. He has since built a 50-foot tower at his home QTH. Another offshoot is the first Advanced Study Class in a long time organized by Peter, VE4TTH, who also became an Amateur with Leor's class.

Since our trip our ham fraternity has grown by 50 new Amateurs. One never knows when a ham seed, carried on the wind, will fall to earth and grow into something beautiful.

Richard Sheridan, VE4ESX, owns and operates his own major appliance service company which he started in 1977. He started sailing on Falcon Lake and Lake of the Woods, both in Ontario. He is currently sailing from Gull Harbour on Hecla Island, Manitoba. He became an Amateur in the mid-1990s and started serving with Winnipeg ARES during the big 1997 flood. Richard can be reached at VE4ESX@rac.ca.

TCA

THE SPORTS PAGE

— THE CANADIAN CONTEST SCENE

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The contest results provided in this column are courtesy of the Maritime Contest Club team:

Gary Bartlett, VE1RGB
Scott Nichols, VE1OP

For more contest information check out these online sites:

http://www.hornucopia.com/contestcal/weeklycont.html

http://www.contesting.com

http://www.sk3bg.se/contest/

http://www.arrl.org/contests/calendar.html

http://www.arrl.org/contests/rate-sheet/about.html

http://www.cq-amateur-radio.com/awards.html

The "Contest Calendar" on page 55 is presented as a guide only. RAC and TCA do not necessarily endorse or support any of the contests or the accuracy of the information.

Bands: The 30, 17 and 12m bands are never used in any contest.

SUMMER SPORTS

As usual the RAC Canada Day Contest kicks off July in a big way.

Other major contributors to summer activity are the IARU HF World Championship and the Islands on the Air (IOTA). Both of these bring with them special connotations this year.

Add in a CQ VHF Contest, growing in popularity every year, the DARC Worked All Europe CW Contest and a handful of very busy QSO Parties and it is easy to see that beach scheduling can be a major problem!

IARU AND WRTC-2014

WRTC-2014 is now one year away and the IARU Championship Contest is where it will happen.

Last year, a number of stations were tested, equipped to WRTC standards and used in last year's IARU test. This will happen again this year. They hope to have 30 stations in operation for the 2013 test. This means there will be 60 operators involved. Of course none of these operators will be eligible to operate WRTC in 2014. This experience would give them an unfair advantage.

I'm sure there will be a great deal of monitoring of the Reverse Beacon Network checking relative signal levels to determine that all these stations are reasonably equal thus "qualifying " the sites.

For those us who will be neither 2013 testers nor 2014 competitors, keep track of the calls to be used in the 2013 test.

In 2012 there were a number of T-shirts earned by persistent operators for working these stations. Of course, in 2014 there will be something similar in the way of incentives for finding and working the competitors. This will be a little easier because of their special calls.

In 2010 all the North American plaques for working the most WRTC stations in Russia went to VE3s. This time it may be an opportunity for western Canadians to do the job.

All the Participant Qualifying Contests for WRTC-2014 have now been run except for five contests the results of which are not yet in as of mid-May.

Here are the present official totals as of May 2013 for the top five for Eastern and Western Canada:

Eastern Canada +		**Western Canada +**	
VY2ZM	11,475	VE7CC	11,250
VE3DZ	10,769	VE5ZX	10,150
VE3EJ	10,629	AL7IF	9,892
VE3AT	9,739	VE6EX	9,326
VE3EY	9,457	VA7ST	9,136

Feel free to check the numbers as they are updated at http://www.wrtc2014.org/qualifying/qualification-standings/.

RSGB IOTA CONTEST

The islands off the coasts of all continents will again be alive with portable stations and fixed stations of those lucky enough to be located on islands. It is the RSGB's 100th Anniversary so this should be a big one.

MEMORIES...

It was great to see the article on Jean Hawkins, VE3BVJ, in the "YL News and Views" column in the last TCA (page 33). Jean worked as a radio operator for the Ontario Department of Lands and Forests and it brings back memories of the HF radio network operating in those days. The network was a model for its time, now long gone.

I spent several years as second operator at the regional station in Port Arthur between University sessions. I talked to Jean every day and then had her as a local in Milton, Ontario when she was handling the incoming 2-letter suffix VE3 cards. Good to hear from you Jean!

73 Bob, VE3KZ

DL-DX RTTY 2012

Call	QSO	DXCC	Area	Score	Class
VA2UP	734	115	48	1,557,465	SOAB UNLTD
VA7ST	256	47	48	271,700	SOAB
VA7KO	218	34	52	212,850	SOAB
VE2EBK	98	32	17	60,515	SOAB 6HR
VO1NM	55	17	11	21,420	SOAB
VA3TPV	50	13	13	14,430	SOAB LTD
VE6SQ	40	6	20	9,750	SOAB
VE3AJ	35	5	12	6,120	SOAB LTD
VE5MX	26	9	14	6,095	SOAB
VA3FN	15	4	7	1,650	SOAB TD 6 HR

RSGB IOTA CONTEST 2012

Call	QSO	Mult	Score	Category
VY2TT	2645	322	6,576,850	IOTA FIX SOU MIX 24H HP
VX2I	1304	222	2,177,820	IOTA DXPN MS MIX 24H HP
VC1X	1121	165	1,337,325	IOTA DXPN MS MIX 24H HP
CY9M	1147	67	503,505	IOTA DXPN MS MIX 24H HP
VE1AL	419	126	473,130	IOTA FIX SOU MIX 24H LP
VE3XB	379	120	324,960	WORLD SOU CW 24H HP
VE1RGB	267	123	308,730	WORLD SOU CW 24H LP
VE9MY/VE1	373	76	229,900	IOTA DXPN SOU SSB 24H LP
VA7FC	588	56	218,960	IOTA FIX SOA SSB 24H HP
VE3UTT	197	95	173,280	WORLD SOA CW 12H HP
VE3IAE	238	81	137,538	WORLD SOU MIX 12H LP
VE1ZD	206	63	102,123	WORLD SOA SSB 12H LP
VE3OM	77	58	66,990	WORLD SOU CW 24H LP
VE4EAR	93	60	65,760	WORLD SOA MIX 24H HP
VE3TW	141	47	54,191	WORLD SOU MIX 24H LP
VE5MX	191	47	53,392	WORLD SOA CW 24H HP
VE2EZD	119	47	46,624	WORLD SOU CW 12H LP
VE6BMX	83	44	34,760	WORLD SOA MIX 24H HP
VE1JS	82	35	24,395	WORLD SOU SSB 12H HP
VA3GD	91	30	23,400	WORLD SOU SSB 24H LP
VA3DDX	55	36	22,212	WORLD SOA MIX 12H LP
VA7RN	175	18	20,070	IOTA FIX SOU CW 12H HP
VE3FJ	63	31	19,623	WORLD SOU CW 12H LP
VA7ST	148	25	17,475	WORLD SOU CW 12H HP
VE5KS	43	29	14,558	WORLD SOU MIX 12H HP
VE1OP	108	17	13,090	IOTA FIX SOA CW 12H HP
VE3AD	42	23	10,902	WORLD SOU SSB 12H HP
VE3CX	37	24	9,888	WORLD SOU MIX 12H HP
VE3VHB	26	25	9,750	WORLD SOA MIX 24H HP
VE3NEA	26	24	9,048	WORLD SOA CW 12H LP
VA2UTC	40	15	4,905	WORLD SOA SSB 24H LP
VY2SS	57	10	4,450	IOTA FIX SOU MIX 24H HP
VE9HF	86	13	4,433	WORLD SOU CW 12H HP
VE7RSV/P	55	10	3,750	IOTA DXPN SOU SSB 24H LP
VE2KOT	15	11	1,903	WORLD SOU CW 24H LP
VA3TPV	16	8	1,192	WORLD SOU SSB 24H LP
VE2DRO	16	2	200	IOTA DXPN SOU MIX 12H LP
VE2AWR	10	3	177	WORLD SOU MIX 12H LP
VA3RJ	8	3	165	WORLD SOU CW 12H QRP

CQ WW VHF CONTEST 2012

Call	QSO	Grid	Score	Class
VE3CRU	182	122	30,988	R
VE7JH	280	66	24,354	M
VE3ZV	158	81	18,549	A
VE3KZ	167	71	14,697	A
VA7FC	170	47	8,507	M
VE7DAY	166	43	7,740	A
VE3SMA	80	45	5,220	M
VE2NGH	61	31	2,263	M
VA3TVW	46	18	1,422	A
VE3RKS	33	30	1,320	R
VE1SKY	29	26	936	A
VA3WU	28	15	675	A
VE3MSC	31	14	658	A
VE3MV	31	19	589	6
VE3CWU	32	15	480	A
VA6AN	20	15	405	A
VE3EK	24	16	384	6
VE3CX	24	14	336	A
VE9MY	22	15	330	A
VE7JRX	22	12	300	Q
VE2HAY	15	13	286	A
VA3GKO	14	12	168	A
VE3OIL	18	9	162	6
VE3HHT	9	8	128	A
VA7ST	13	9	117	6
VE4EAR	4	4	16	6
VE9AA	2	2	4	A

10 GHZ AND UP 2012

Call	QSO	Calls Wkd	Distance Pts	Score	Category
VE3ZV	45	18	5,548	7,348	UP
VE3SMA	46	18	4,326	6,126	UP
VE3MSC	47	16	4,511	6,111	10G
VE3/K0AWU	17	16	4,225	5,825	10G
VE3FHM	40	15	4,163	5,663	UP
VE3NPB	24	11	3,349	4,449	UP
VE3KRP	15	15	2,824	4,324	UP
VE3KH	26	15	2,697	4,197	10G
VE3ADQ	12	12	1,792	2,992	10G
VE3NYZ	9	4	1,006	1,406	10G

KANSAS QSO PARTY 2012

Call	CW	DIG	PH	Mult	Score
VE7CV	86	0	62	76	29,232
VA3XOV	111	3	0	77	26,534
VE6BMX	70	0	69	71	24,808
VE3KZ	89	0	56	63	24,077
VA3GKO	0	0	89	53	9,634
VE2KOT	43	0	0	33	4,257
VE3LFS/M	0	0	25	16	900
VE2AWR	10	0	1	7	224
VA2UTC	0	0	3	2	12
VE2PIJ	0	0	2	1	4

WAE DX CW 2012

Call	QSO	Mult	QTC	Score	Class
VY2ZM	1 874	508	1 911	1,922,780	HP
VE3AT	1 807	474	1 830	1,723,938	HP
VE3FWA	872	283	893	499,495	HP
VE3UTT	842	287	857	487,613	HP
VE3TA	675	294	679	398,076	HP
VE9HF	607	308	602	372,372	HP
VE3XB	658	262	671	348,198	HP
VE3TG	497	267	498	265,665	LP
VE5ZX	533	199	568	219,099	HP
VE2FK	422	258	426	218,784	HP
VA7ST	555	191	567	214,302	HP
VE5MX	501	209	511	211,508	HP
VE3OSZ	396	256	407	205,568	LP
VA3EC	415	177	424	148,503	HP
VA3AR	380	180	389	138,420	LP
VE1OP	437	146	444	128,626	HP
VE3IAE	374	168	372	125,328	LP
VE3KAO	279	205	282	115,005	LP
VA3SB	233	139	231	64,496	LP
VE2AWR	243	112	243	54,432	LP
VE3CX	178	148	181	53,132	HP
VE3RZ	172	131	172	45,064	LP
VE3TW	158	104	163	33,384	HP
VE3FJ	175	155	0	27,125	LP
VE4YU	122	92	124	22,632	LP
VE3RSA	127	116	20	17,052	LP
VE7AX	78	88	61	12,232	HP
VE2KOT	109	105	0	11,445	LP
KD2HE/VE3	80	66	86	10,956	LP
VE3/YO2GL	98	90	0	8,820	LP
VE3EY	57	60	57	6,840	HP
VE6EX	76	68	0	5,168	LP
VA2WA (VA2WDQ)	61	67	0	4,087	LP
VE3RCN	44	48	0	2,112	LP
VE7BGP	24	26	0	624	LP
VA3FN	19	23	1	460	LP

SCC RTTY CHAMPIONSHIP 2012

Call	QSO	Mult	Score	Class
VA2UP	963	232	587,192	SOAB HP
VA2AM	471	176	221,408	SOAB HP
VE2FXL	295	120	91,800	SOAB HP
VA7ST	276	144	88,272	SOAB HP
VE2EBK	239	139	84,234	SOAB LP
VE5MX	214	119	60,690	SOAB HP
VY2SS	191	90	44,550	SOAB HP
VE3KAO	150	112	41,440	SOAB LP
VA5LF	131	97	29,682	SOAB HP
VE7BSM	143	88	27,368	SOAB LP
VA3SB	92	60	14,880	SOAB LP
VE6SQ	76	51	7,956	SOAB LP
VE7CF	53	33	4,224	SO20

IARU HF WORLD CHAMPIONSHIP 2012

Call	QSO	Mult	Score	Power	Class
XM3AT (VE3AT)	2,628	273	2,690,688	HP	SO MIX
VY2ZM	2,500	266	2,642,444	HP	SO MIX
VE3EJ	2,561	274	2,639,990	HP	SO MIX
VE7CC	1,901	205	1,256,855	HP	SO MIX
VE3YAA	1,763	199	1,255,093	HP	M/S
VE3UTT	1,639	210	1,237,110	HP	M/S
VA2WA (VA2WDQ)	1,348	228	1,055,640	LP	SO CW
VY2RAC	1,489	190	978,310	HP	HQ
VE3MIS	1,286	179	769,700	HP	M/S
VE1RGB	998	185	610,870	LP	SO CW
VA7ST	823	140	363,580	HP	SO CW
VE3KI	678	168	361,200	LP	SO CW
VA7KO	826	126	334,404	HP	SO CW
VE9HF	720	114	310,080	HP	M/S
VE6EX	1,063	97	307,781	LP	SO MIX
VE7JH	715	132	293,436	LP	SO CW
VE1AL	508	149	255,982	LP	SO CW
VE3CR	514	155	252,650	HP	SO MIX
VE2FK	507	145	244,615	HP	M/S
VE2NGH	497	116	213,788	HP	M/S
VE3IAE	540	118	202,488	LP	SO CW
VE7IO	651	96	195,936	HP	M/S
VE1WOW (K1WO)	340	166	182,268	LP	SO PH
XM3FH (VE3FH)	464	106	148,612	LP	SO CW
VE1DT	297	139	128,853	HP	M/S
VE5ZX	444	86	126,420	LP	SO CW
VE4YU	364	105	116,760	LP	SO MIX
VA3XH	299	131	114,625	HP	SO PH
VA2RAC	353	101	106,555	HP	M/S
VE3JM	507	47	104,293	HP	SO MIX
VA3YOJ	293	98	101,038	HP	SO PH
VE3OM	275	107	99,617	LP	SO CW
VE4VT (VE4EAR)	275	115	97,175	HP	SO MIX
VE3TW	272	111	93,240	HP	SO MIX
VE5KS	303	85	84,065	LP	SO CW
VE2QY	295	80	74,160	LP	SO CW
VE3KAO	304	70	63,840	LP	SO CW
VE7KW	255	68	52,156	HP	M/S
VA7DZ	254	60	48,960	HP	M/S
VE6BMX	277	59	48,203	LP	SO MIX
VE3MM	228	58	45,356	HP	SO CW
VA3GD	179	87	44,979	LP	SO PH
VA3TPS	184	76	40,888	LP	SO PH
VE3MGY	274	50	39,600	QRP	SO CW
VE6SH	292	47	39,292	HP	SO MIX
VE3CWU	205	69	38,571	HP	SO PH
VE3CX	183	74	37,666	HP	SO MIX
VO1BQ	187	62	36,146	LP	SO MIX
VE1ZD	157	72	34,056	LP	SO PH
VE7NS	153	60	30,780	LP	SO PH
VA3RKM	179	53	27,189	QRP	SO CW
VE2EBK	115	66	25,014	LP	SO PH
VE3HED	114	59	20,296	LP	SO MIX
VE3RCN	115	57	18,639	LP	SO MIX
VE3IGJ	134	43	17,028	QRP	SO CW
VE6/SP9FKQ	148	35	15,680	LP	SO CW
VE5MX	122	41	15,252	HP	SO CW
VE9OA	101	51	14,331	HP	SO PH
VE7DDG (VE7DS)	97	40	12,840	LP	SO CW
VY2LI	80	51	11,730	LP	SO PH
VA3LUK	80	51	10,812	LP	SO PH
VE6AX	99	36	9,756	LP	SO CW
VA7RN	91	33	9,141	HP	SO CW
VA3ATT	89	32	8,992	LP	SO CW
VE7NA	73	34	7,718	HP	SO PH
VA2GN	59	34	6,086	LP	SO PH
VA3GKO	54	32	5,376	LP	SO PH
VA3FN	70	26	5,096	LP	SO CW
VA3WU	50	35	4,970	LP	SO MIX
VA7HZ	54	31	4,898	HP	SO PH
VA7MM	48	26	4,368	LP	SO CW
VE2KOT	60	20	3,480	LP	SO CW
VE2QV	52	23	3,404	LP	SO CW
VA7VJ	46	21	3,192	LP	SO CW
VE7RSV	37	23	2,507	LP	SO PH
CG7CWPC	35	15	2,085	HP	SO PH
VA2UTC	34	15	1,350	LP	SO PH
VE3GTC	41	11	1,331	QRP	SO CW
VA3RJ	25	15	1,095	QRP	SO CW
VE3AD	17	13	663	LP	SO PH
VE3NR	14	9	432	HP	SO PH
VE3/YO2GL	12	7	224	LP	SO CW
VA2SG	11	5	125	QRP	SO MIX
VE3NLE	5	5	55	HP	SO PH

SARTG WW RTTY CONTEST 2012

Call	QSO	Mult	Score	Category
VA2UP	801	190	1,960,800	SOAB
“VE3FJB (VE3FJB, VA3LM, VA3YC)”	519	137	913,790	MO
VE3UTT	276	118	440,140	SOAB
VY2SS	305	93	366,885	SOAB
VA7ST	218	86	210,700	SOAB
VE2FK	211	78	204,360	SOAB
VA2UP	238	57	169,575	SO 40M
VE5MX	189	64	132,800	SOAB
VE3FH	141	70	112,000	SOAB LP
VE2FXL	165	44	93,060	SO 20M
VE2EBK	121	58	80,330	SOAB LP
VE3UTT	74	37	35,705	SO 40M
VA3XH	76	38	32,300	SOAB
VE7CF	64	36	27,720	SOAB
VE7BSM	81	30	25,500	SOAB LP
VE3EY	57	28	20,160	SO 20M
VE3FWF	40	25	11,125	SOAB LP
VA7HZ	21	19	4,655	SOAB LP
VA7AM	22	15	3,300	SOAB LP
VE3VID	16	9	2,115	SOAB LP
VE7GPK	12	130	1,560	SOAB LP
VE3MGY	14	9	1,260	SO 20M
VE2KOT	5	55	275	SOAB LP

NCJ JULY NORTH AMERICAN QSO PARTY, RTTY 2012

Call	QSO	Mult	Score	Class
VE7CC	500	147	73,500	SOAB
VE4EAR	378	127	48,006	SOAB
VA5LF	405	115	46,575	SOAB
VE7BC	379	117	44,343	SOAB
VA7ST	362	117	42,354	SOAB
VA3PC	331	124	41,044	SOAB
VA7KO	341	110	37,510	SOAB
VE3UTT	289	99	28,611	SOAB
VE3VID	209	103	21,527	SOAB
VE3AJ	196	90	17,640	SOAB
VE6BMX	230	74	17,020	SOAB
VE7FO+VE7ACN	172	80	13,760	M/2
VE3GYL	173	77	13,321	SOAB
VE3KAO	157	78	12,246	SOAB
VE6AX	114	59	6,726	SOAB
VE3HG	106	61	6,466	SOAB
VE3FJ	115	55	6,325	SOAB
VE3CX	105	56	5,880	SOAB
VE2FK	103	52	5,356	SOAB
VA3XH	90	58	5,220	SOAB
VE2EBK	82	56	4,592	SOAB
VE7HBS	106	38	4,028	SOAB
VE3EY	69	38	2,622	SOAB
VY2LI	48	30	1,440	SOAB
VE2KOT	24	20	480	SOAB
VE2EZD	23	16	368	SOAB
VA3FN	4	4	16	SOAB

TARA GRID DIP SHINDIG 2012

Call	QSO	Mult	Score	Power
VE2EBK	126	107	13,482	LP
VE2FXL	76	67	5,092	HP
VA7ST	63	55	3,465	LP
VE2FK	62	54	3,348	HP
VE3KAO	43	38	1,634	LP
VE7GPK	9	9	81	LP

HAWAII QSO PARTY 2012

Call	QSO	Points	Score	Power
VE6BMX	38	79	1,185	HP
VE7CV	32	60	780	LP
VE3OM	13	44	484	HP**
VA5LF	16	32	256	LP
VE7RSV	21	24	216	LP
VE3UTT	14	22	198	HP
VE3NLS	15	16	128	HP
VE1HQ	7	14	70	HP
VE9OA	6	10	50	LP
VA7AQD	5	9	36	LP
VE8GER	9	9	36	LP

** CW only

OHIO QSO PARTY 2012

Call	CW Q	CW Mult	SSB Q	SSB Mult	Score	Class
VE2AWR	69	38	13	12	7,550	SOLP
VE6BMX	36	26	20	13	3,588	SOHP
VE3LFA	0	0	61	32	1,952	SOLP
VE9OA	10	10	27	19	1,363	SOLP
VA2UTC	0	0	21	17	357	SOLP
VE7NS	0	0	5	5	25	SOLP

NCJ AUGUST NORTH AMERICAN QSO PARTY, SSB 2012

Call	QSO	Mult	Score	Category
VE3CX	620	132	81,840	SO
VE3KZ	521	138	71,898	SO
VE3TA	494	140	69,160	SO
VE6BMX	541	89	48,149	SO
VE3VE	406	112	45,472	SO
VE7BC	298	78	23,244	SO
VE3TW	199	88	17,512	SO
VO1KVT	256	52	13,312	SO
VE4YU	113	63	7,119	SO
VA3PC	126	55	6,930	SO
VE3HED	99	64	6,336	SO
VE3RM*	149	42	6,258	M/2
*VA3DF	100	51	5,100	SO
VE8G ER	82	40	3,280	SO
VE7NA**	75	43	3,225	M/2
VE3VID	71	44	3,124	SO
VA2UTC	59	36	2,124	SO
VA3EEB	60	33	1,980	SO
VE9OA	78	24	1,872	SO
VA2WA (VA2WDQ)	59	29	1,711	SO
VE3FJ	60	28	1,680	SO
VE6SPS	45	23	1,035	SO
*VA3WR	41	25	1,025	SO
VE3SB	34	26	884	SO
VE3TU	28	22	616	SO
VA7GAP	30	14	420	SO
VE3EDX	19	12	228	SO
VA7HZ	12	10	120	SO
VE7G PK	4	2	8	SO
VE3XCM	2	2	4	SO

*QRP   Ops: * VE3OKK, VA3NPL and ** VA7DSW, VE7BGP, VA7DGV

NCJ AUGUST NORTH AMERICAN QSO PARTY, CW 2012

Call	QSO	Mult	Score	Class
VE3JM	880	202	177,760	SOAB
VE3TA	650	190	123,500	SOAB
VE3XB	663	183	121,329	SOAB
VA7ST	646	156	100,776	SOAB
VE5MX	633	157	99,381	SOAB
VE3KZ	516	179	92,364	SOAB
VE6EX	593	133	78,869	SOAB
VE3KI	504	151	76,104	SOAB
VE7IO*	470	136	63,920	M/2
VE3UTT	433	128	55,424	SOAB
VE7FO**	376	136	51,136	M/2
VE6BMX	408	124	50,592	SOAB
VE5UO	404	111	44,844	SOAB
VE3GFN	376	116	43,616	SOAB
VA3DF	336	115	38,640	SOAB
VE3CX	302	118	35,636	SOAB
VE9HF	332	104	34,528	SOAB
VE3FJ	276	104	28,704	SOAB
VE5KS	263	105	27,615	SOAB
VA3ATT	258	99	25,542	SOAB
VE4YU	151	83	12,533	SOAB
VE3HG	180	68	12,240	SOAB
VA3RKM	150	67	10,050	SOAB
VE2EZD	122	70	8,540	SOAB
VE2FK	124	63	7,812	SOAB
VE3NO2GL	119	49	5,831	SOAB
VE3OM	115	50	5,750	SOAB
K2NVN/VE3	99	53	5,247	SOAB
VA2WA (VA2WDQ)	80		3,920	SOAB
VE9OA	82	42	3,444	SOAB
VE3RCN	92	36	3,312	SOAB
VE2KOT	69	34	2,346	SOAB
VE7BGP	53	39	2,067	SOAB
VA3WR	61	29	1,769	SOAB
VA3RJ	41	30	1,230	SOAB
KD2HE/VE3	51	24	1,224	SOAB
VY2SS	24	15	360	SOAB
VA5LF	17	15	255	SOAB
VE5BCS	11	10	110	SOAB
VA3EC	12	9	108	SOAB

Ops: * VE7GM, VE7IO, VE7OFH and ** VE7FO

JACQUES D'AVIGNON, VE3VIA – SK

Jacques d'Avignon, VE3VIA, passed away in Ottawa on February 7, 2013 at age 78.

Jacques started doing some SWL in 1938.

In those days all home radios had shortwave bands and it was his initiation to the world of shortwave. Since 1950 he had never been without at least one radio that can pick up shortwave broadcasts and utility transmissions.

Over the years, he owned or operated various types of shortwave receiving equipment. He was involved in building, setting up and operating the first commercially owned Weather Satellite APT (Automatic Picture Transmission) receiving station in Canada and a similar one in the Middle East. He was also involved in commercial radio-facsimile and radio-teletype operations.

Over the years, he did research on antennas and in the "black art" of radio propagation forecasting. Each month he used to prepare the propagation forecasts page for the British magazine *ShortWave Magazine*, and for the web pages of Radio Amateur of Canada and the Ontario DX Association.

For many years, he wrote a monthly column on propagation topics in *Monitoring Times.* He was the "Propagation Forecasts" columnist in *The Canadian Amateur* from July/August 1993 until January-February 1999

Many of his articles on radio propagation and other radio-related subjects have also been published in handbooks and magazines worldwide.

During the mid-1990s, the Russian service of Radio Canada International was also using his services to prepare the propagation forecasts that were supplied to the Russian listeners attempting to listen to worldwide broadcasts.

Jacques had a commercial General Radio Telephone Licence and an Amateur Basic and Advanced Certificate of Proficiency in Radio. He was one of the main "instigators" of the SWL DXpeditions in Miscou Island, New Brunswick, where the noise conditions are just right to easily hear European LW and MW broadcasters and also intercept some European and South Atlantic NDBs at all hours of the day.

Courtesy of the DXing.info website: http://www.dxing.info/about/dxers/davignon.dx

Jacques was the husband and best friend of Michelle Demers for 24 years. Cherished step-father of Kathryn Sukey Farrell (Tom) and the late Emily Sukey McDonald (Cim). Loving grandfather of Amelia and Porter Farrell. Dear father of Marie-José (Robert Pauletto) and Jean (Arne Aulas). Dear grandfather of Jeffrey, Nancy and Carolyn Pauletto and Alexandre d'Avignon.

CONTEST CALENDAR FOR JULY, AUGUST AND EARLY SEPTEMBER 2013

Contest Name	Start	End	Web Address
Canada Day Contest	0000z July 1	2359z July 1	http://www.rac.ca/service/infocont.htm
MI July 4th QRP CW Sprint	2300z July 4	0300z July 5	http://www.qsl.net/miqrpclub/
Venezuelan Independence Day	0000z July 6	2359z July 7	http://www.radioclubvenezolano.org/rules.htm
DL-DX RTTY Contest	1100z July 6	1059z July 7	http://drcg.de/index.php?lang=en
QRP ARCI Summer HB Sprint	2000z July 7	2359z July 7	http://www.qrparci.org/
FISTS Summer Sprint CW	0000z July 12	0400z July 12	http://www.fists.org/operating.html#sprints
IARU HF World Championship	1200z July 13	1200z July 14	http://www.arrl.org/iaru-hf-championship
NAQCC Sprint	0130z July 18	0330z July 18	http://naqcc.info/
CQ WW VHF	1800z July 20	2100z July 21	http://www.cqww-vhf.com/
NA QSO Party RTTY	1800z July 20	0600z July 21	http://www.ncjweb.com/
RSGB IOTA Contest	1200z July 28	1200z July 29	http://www.rsgbcc.org/hf/rules/2013/riota.shtml
ARLHS Lighthouse/Lightship Week	0001z Aug 1	2400z Aug 8	http://arlhs.com/activations.html
TARA Grid Dip Digital Contest	0000z Aug 3	2400z Aug 3	http://www.n2ty.org/seasons/tara_grid_rules.html
10-10 Int. Summer SSB	0001z Aug 3	2400z Aug 4	http://www.ten-ten.org/
ARRL UHF Contest	1800z Aug 3	1800z Aug 4	http://www.arrl.org/august-uhf
NA QSO Party CW	1800z Aug 3	0600z Aug 4	http://www.ncjweb.com/
WAE DX Contest CW	0000z Aug 10	2359z Aug 11	http://www.darc.de/referate/dx/contest/waedc/en/
MDC QSO Party	1600z Aug 10	0400z Aug 11	http://mdcqsoparty.w3vpr.org/
MDC QSO Party	1600z Aug 11	2400z Aug 11	http://mdcqsoparty.w3vpr.org/
NAQCC Sprint	0130z Aug 14	0330z Aug 14	http://naqcc.info/
SARTG WW RTTY	0000z Aug 17	1600z Aug 18	http://www.sartg.com/contest/wwrules.htm
ARRL 10 GHz Cumulative	0600 Aug 17 *	2400 Aug 18 *	http://www.arrl.org/10-ghz-up
Russian Districts Contest	0800z Aug 17	0800z Aug 18	http://rdaward.org/indexeng.htm
NA QSO Party SSB	1800z Aug 17	0600z Aug 18	http://www.ncjweb.com/
Kansas QSO Party	1400z Aug 24	0200z Aug 25	http://www.ksqsoparty.org/rules/
Kansas QSO Party	1400z Aug 25	2000z Aug 25	http://www.ksqsoparty.org/rules/
Hawaii QSO Party	0400z Aug 24	2200z Aug 26	http://www.karc.net/
Ohio QSO Party	1600z Aug 24	0400z Aug 25	http://www.ohqp.org/adminRules.htm
SCC RTTY Championship	1200z Aug 24	1159z Aug 25	http://lea.hamradio.si/scc/rtty/rtty.htm
YO DX HF Contest	1200z Aug 24	1200z Aug 25	http://www.radioamator.ro/contest/
Tennessee QSO Party	1800z Sept 1	0300z Sept 2	http://tnqp.org/wp/
MI Labour Day QRP Sprint	2300z Sept 2	0300z Sept 3	http://www.qsl.net/miqrpclub/
Russian “Radio” RTTY WW Contest	0000z Sept 7	2400z Sept 7	http://www.qrz.ru/contest/detail/93
All Asia SSB Contest	0000z Sept 7	2400z Sept 8	http://www.jarl.or.jp/English/0-2.htm
QCWA Fall QSO Party	0000z Sept 7	2400z Sept 7	http://qcwa.org/2013qso-party.htm
NA Sprint CW	0000z Sept 9	0400z Sept 9	http://www.ncjweb.com/

*Note: In the above chart an * indicates Local Times*

FEEDBACK: PRESENTATION ABOUT METEORSCATTER VHF

This month I was asked to give a presentation on Meteorscatter VHF Amateur Radio to the Halifax ARC. Sixty members attended the presentation at the HARC Club on April 17. They seemed to enjoy it. The presentation gives an introduction to meteorscatter, what gear and software is required, bands and modes, operating, DX expectations and so forth. Actual QSOs are shown via hyperlink to YouTube. Meteorscatter references and information sources are also hyperlinked.

The presentation “Meteorscatter VHF Communications” is in Powerpoint and I have converted it to PDF for viewing by those without Powerpoint (free PowerPoint viewers are available on the web for download).

In case your readers might be interested here are some links:

Maritime Contest Club (PDF version with hyperlinks):
http://www.maritimecontestclub.com/images/Meteorscatter_VHF_Communications_-_pdf.pdf

Halifax ARC (PDF version with hyperlinks):
http://halifax-arc.org/sites/default/files/MeteorscatterVHFComms.pdf

Available at Yahoo WSJTGROUP (Powerpoint & PDF versions with hyperlinks); it is free to join; sign in with username and password:
http://groups.yahoo.com/group/wsjtgroup/files/

Roger Sturtevant, VE1SKY
Bridgetown, Nova Scotia

SECTION NEWS

THE RAC FIELD ORGANIZATION FORUM

CHIEF FIELD SERVICES OFFICER
Doug Mercer, VO1DTM
Box 1042
84 Main Road
Goulds NL A1S 1H2
Tel. 709-364-4741
Email: vo1dtm@rac.ca

MESSAGE FROM THE RAC CHIEF FIELD SERVICES OFFICER

Summer is quickly approaching, at least here in Newfoundland, and before long we will be heading for the cottage to enjoy all that this great country has to offer. As you go about your summer fun, please stay safe.

ARES Revisited

As we continue with the Field Organization Review Project, it's becoming evident that many of you see yourselves as eager community service operators, stepping up for marathons, MS walks, triathlons and the like, but hesitate to offer your services for full-blown emergency EmComm work.

Perhaps it's time we consider separating the two – and that's what the National Amateur Radio Emergency Database (NARED) is all about. Specially trained operators, tasked to do specific tasks. Please let me have your feedback on this approach.

ARES and ARCS

As Amateurs, we contribute to the vital services of the Amateur Radio Emergency Service and the Amateur Radio Community Service. Both of these can operate as a valuable service to Canadian municipalities, NGOs, community service groups and so on, but the training requirement is vastly different.

ARES ID Cards

The turnaround time for ARES ID cards is less than two days. If you have a card that is expiring soon, please visit the RAC website and complete the application as if you were obtaining a new card but including a current picture: https://www.rac.ca/en/rac/public-service/ares/id-cards/

Thanks for all your emails of encouragement. They are appreciated.

We are a growing solvent organization that represents Canadian Amateurs. Let's support it!

Doug Mercer, VO1DTM CEC
Chief Field Services Officer

BRITISH COLUMBIA/ YUKON:

SM Paul Giffin, VA7MPG
A/SM Ron McFadyen, VY1RM
A/SM Neil King, VA7DX
STM Al Ross, VE7WJ
SEC Fred Orsetti, VE7IO
SEC Terry Maher, VYIAK (Yukon)
OBM Bill Foster, VE7WWW
OOC: Dennis Wight, VE7IJJ
ACC: Karla Wakefield, VA7KJW

MARCH-APRIL SM REPORT:

Bob Holowenko, VE7WNK, has a very interesting website (http://www.ve7wnk.ca) which includes a calendar for Amateur Radio related activities in the Lower Mainland. In addition there is a link to some contest pages. Please take a look at it. Thanks for your efforts Bob.

Congratulations to Paul Peters, VE7BZ, of the Cowichan Valley. Paul was attending the Emergency Communications Academy in Seattle, Washington when he won the door prize. The prize was a dual-band handheld radio. Paul is a long-time Amateur so he immediately gave his prize to the newest ham in attendance. Well done Paul!

BC Yukon Vice-Director Lou Beaubien, VE7GCE, has been named "Citizen of the Year" by the City of Burnaby and will receive the Kushiro Cup. Lou has been active in the Burnaby ARC since 1977. He is also active with the Burnaby ARES unit and has worked with the Knights of Columbus, the Burnaby Red Cross, the 2012 BC Summer Games and Kwantlen College. For more information on this very active ham just query "Lou Beaubien" on Google. Congratulations Lou.

The Surrey Emergency Program Amateur Radio Society has been busy. It is running a Morse Code net for the "under 20" club on Sunday nights at 7:30 pm on 28.020 MHz. This is in addition to their ongoing NTS training.

The Westcoast Amateur Radio Association has also been busy of late. On Sunday, April 28, they provided communications for the Times-Colonist 10K Run. The route for this run is around the Victoria area. Thirty-two radio operator positions had to be filled. From May 24-27, they then provided communications to the Swiftsure International Yacht Race. What makes this event a little different is there are positions on both land and sea – and it is a 24-hour-a-day operation. Forty-five radio operator positions had to be filled.

On April 25, the Coast Emergency Communications Association – the ARES unit for the Nanaimo area – held their Award Night. Service pins of 5, 10 and 15 years were presented to members of the group. For more information on this event see page 48.

In late April, the Commander of the International Space Station, Chris Hadfield, VA3OOG, made contact with the Grade 3 students at the Grey Mountain School in Whitehorse in the Yukon. This was the first contact between the Yukon and the Space Station.

Go to http://yukon-news.com/news/yukon-voices-reach-final-frontier/ for a photo of the kids and an interesting article. Special thanks also go to VE1ISS in Bedford, Nova Scotia for all his hard work.

– 73, Paul, VA7MPG

Public Service Honour Roll
March:
VA7MPG 78, VE7GN 170, VE7WJ 100, VE7WWW 101.
April:
VA7MPG 78, VE7GBO 100, VE7GN 160, VE7WJ 100, VE7WWW 114.

Bulletins:
March 68
April 38

ALBERTA:

SM: Garry Jacobs, VE6CIA
SEC: Curtis Bidulock, VE6AEW
STM: Jack Humphries, VE6JRH
OOs: Tom Martens, VE6TRM
Don Momen, VE6JY

MARCH-APRIL SM REPORT:

SEC Report
SEC Curtis, VE6AEW

I wish to announce that Len, VE5WI, has passed on the reins of EC to Tony, VE6MVP, for the Vegreville, Alberta area. I would like to thank Len for his past support of ARES and for keeping the group active.

Cold Lake ARES
EC Gary, VE6FGN

Cold Lake ARES (CLARES) continues to be engaged with our community. We have several activities scheduled for the summer, with more events being reviewed.

CLARES has purchased another VHF repeater and is working towards mating it with a crank up 75-foot tower and trailer, making this our first portable repeater.

Work continues on a new linked repeater as well, which is located on the south side of the city.

ARES Stampede
EC Ian, VA6EMS

We are now working on incorporating the group as the "Greater Calgary Area Amateur Radio Emergency Service Society".

One of the Amateurs in the group is a lawyer who is going to see if we can use Calgary ARES or Calgary and Area ARES as a working name going forward. (It makes sense as members of the group are in Airdrie as well.)

Thanks to everyone who sent in reports for this session.

– Garry Jacobs, VE6CIA

MANITOBA:

SM: Jan Schippers, VE4JS
STM: Jan Schippers, VE4JS
SEC: Vacant
DECs: Jeff Dovyak, VE4MBQ (Capital Region and CanWarn);
Gord Snarr, VE4GLS (South-East Central Region / South-West Region);
Wayne Warren, VE4WR (North Region and Special Projects); Vacant (North-Eastern Region); Vacant (North-West Region);
EC Ron Wlliscroft, VE4QE (Selkirk and District);
Bill Boskwick VE4BOZ for RM of Grey, RM of Dufferin & Town of Carman

MARCH-APRIL SM REPORT:

Well, spring is just about over and we were spared flooding for this year. The Winnipeg ARC Spring Fleamarket was held on Sunday, April 14 at Heritage Victoria Community Centre. This was a very successful event and all the tables were sold. This event is a great social gathering with lots of good stuff to see and buy.

Winnipeg ARES
Jeff Dovyak, VE4MBQ

Our March General Meeting focused on Callouts & Equipment.

Fifteen Winnipeg ARES members and affiliates provided Volunteer Amateur Radio communications at Camp Amisk for the Klondike Derby. Thanks to Bob Poole, VE4MAQ, for coordinating the event for us and thanks to Richard Kazuk, VE4KAZ, for setting up crossband retransmit. Our volunteers were: VA4MAC; VE4s: CIB, STS, RBH, CLK, TRO, GWN, CHT, KAZ, JHJ, GMB, CDM, MBQ, MAQ and also Jeffery Kazuk.

I would like to welcome new ARES member Andrew Johnson, VE4APJ.

VE4EOC, in the City of Winnipeg Emergency Operations Centre, received a thorough Station Check and documentation update on March 22. Thirty-nine Amateurs attended CanWarn Spotter Training on Saturday, March 23 at

RAC SECTION MANAGER ELECTION NOTICE: NEWFOUNDLAND AND LABRADOR SECTION

You are hereby solicited for nominating petitions pursuant to an election for Section Manager. The name of the incumbent appears on **page 4** of this issue of *The Canadian Amateur*. A petition, to be valid, must carry the signatures of five or more full members of RAC residing in the Section concerned. It is advisable to have more than five. Photocopied signatures are not acceptable. Signatures must be on the petition. Petition forms are available from RAC Headquarters but are not required.

The form below is acceptable:

Third Notice to all RAC members in the Newfoundland and Labrador Section

(place & date)

RAC Chief Field Services Officer
720 Belfast Road, Suite 217
Ottawa, ON K1G 0Z5

We, the undersigned RAC Full members residing in the ***Newfoundland and Labrador Section***, hereby nominate

(name & call sign)

as Section Manager for this Section for the next two-year term of office.

(signatures & call signs)

(addresses with postal codes)

A Section Manager must be a resident of his or her Section, a licensed Radio Amateur holding an Amateur operator's Certificate (or equivalent as stipulated by the *Radiocommunication Regulations*) and should always operate radio equipment only within the limits and privileges of the certificate and qualification held, and have been a RAC Full Member for a continuous term of two years at the time of nomination.

Petitions will be received at the RAC Headquarters office until 1600E on November 10, 2013. If only one valid petition is received, the person nominated will be declared elected. If more than one valid petition is received, a balloted election will take place. Ballots will be mailed from RAC Headquarters on or about December 1, 2013. Return of ballots by 1600E January 20, 2014 and will be counted after January 21, 2014.

A Section Manager elected thus will serve a two-year term which begins on March 1, 2014. If no valid petition is received, the Section will be resolicited in *The Canadian Amateur*.

Union Station in Winnipeg. The meteorological teaching was done by Warning Preparedness Meteorologist Natalie Hasell, VE4NAT, while discussion of Net Protocols was presented by Acting SEC/Capital Region DEC Jeff Dovyak, VE4MBQ.

The other attendees were:
VA4s: AJG, CQD and MAC;
VE4s: CK, CY, MMG, DJS, BOZ, RHW, PN, SE, SIG, CDM, GWN, YYL, HK, LDI, RIC, DRK, GKS, TTH, ADS, APJ, PH, PEH, WAL, ALW, BRD, DLA, GMT, MWH, FDM, EDE, GWB, MHZ, GLS, BRR and Shannon Bestland (Operational Meteorologist).

Special thanks to Winnipeg ARES PIO Jim Sutton, VE4SIG, for preparing a number of laminated Wallet Cards containing toll-free reporting number and key reporting elements. Jim also circulated a Media Release prior to the training session. We picked up 15 new Spotters including six from outside Winnipeg.

Troy Pauls ACP gave us an excellent presentation on the STARS Medical Helicopter at our April General Meeting. In mid-May we will be visiting the STARS Base at the airport.

Winnipeg ARES Fundraising Chair, Ed Horton, VE4EIH – assisted by VE4YYL, VE4GWN and VE4SYM – did a terrific job with the ARES Silent Auction at the WARC Fleamarket on April 14. Thanks to those who donated items for the Silent Auction prize lots and thanks to all who supported Winnipeg ARES by purchasing draw tickets. Thanks to Darcy Wilson, VE4DDW, for his recent cash donation and ongoing support of Winnipeg ARES.

At press time a mass public volunteer sandbag campaign for Winnipeg is not anticipated based on predicted river levels in Winnipeg. Check out the new appearance for the City's *Emerg*Web at: http://www.winnipeg.ca/emergweb/

– Jan Schippers, VE4JS

Traffic Totals
March: 10
April: 9

ONTARIO NORTH:

SM: Al Boyd, VE3AJB
Email: ve3ajb@vianet.ca
STM: Pat Dopson, VE3HZQ
Email: dopsonp@vianet.ca
SEC: Dave Hayes, VE3JX
Email: ve3jx@bell.net
OBM: Paul Caccamo VA3PC
Email: va3pc@ciinet.org
Website: http://ontario.racares.ca

MARCH-APRIL SM REPORT:

Now that spring is here many ARES groups are actively supporting their communities with all weather conditions taking place. Communications is an essential part of any Emergency Plan and our ARES groups are ready to assist and support our clients in the north. To all Northern Ontario Amateurs keep up the great work as you make us all look proud.

Albany District
SEC Dave Hayes, VE3JX

Spring has finally arrived and the ARES groups in the Ontario North Section are in the midst of checking and repairing installed antenna facilities.

CanWarn Training is ongoing throughout the Section, with more locations hosting the seminars across the north. The fact that Environment Canada is expanding their training locations is an indication of how they value the program and our participation in it.

Most groups are now starting to prepare for Field Day. While Field Day is not an ARES event per se, it does give members the experience of running stations on emergency power and makeshift antennas, and in less-than-ideal operating conditions – a good test of equipment and operating skills.

On page 60 of the January-February 2013 TCA there was a mention of Sudbury ARES and their deployable field kits. We have had inquiries from other Canadian groups with respect to their makeup.

Albany District

Elliot Lake EC, Davis Sutherland, VE3SUT, reports that their group is making plans for Field Day and they are looking forward to it.

Echo Bay EC, Dave Campbell, VE3EGC, reports that they are in the process of checking out the antennas and power supplies that are onsite at Echo Bay and Laird after several months of not being used. Dave is also involved in securing the site for the local Field Day operation.

Sault Ste Marie EC, Brent MacMillan, VE3OTL, reports that there was a special meeting arranged for our SM Allan Boyd, VE3AJB, to make a D-Star presentation. The meeting was well attended and the presentation was extremely informative, with Allan bringing all his "toys" for our perusal. The benefits of D-Star were demonstrated with the use of DVAP & DVDongle units, together with various handhelds. D-RATS, the messaging system utilizing the low-speed data stream associated with the digital voice channel, was also explained.

Timmins EC, Don Tambeau, VE3HOL, reports steady use of their new D-Star repeater system. They are going to be checking out the D-RATS program in the future.

Amethyst District
DEC Fred Lesnick, VE3FAL

Thunder Bay EC, Brad Harris VE3MXJ, reports: On Monday March 4, DEC Fred, VE3FAL and I met with Donna Faye, the Communications Officer for the Thunder Bay Regional Hospital. She wanted a meeting with us to find out about our ARES group and what we do. We are on their callout list in an emergency and she also wanted to involve us in any emergency exercises they might have.

Atikokan EC, Warren Paulson, VE3FYN, reports: Local VHF Winlink RMS has been re-established at the Atikokan EOC station VA3EOA. This will enable local transmission of email via VHF. Currently, we are utilizing the APRS frequency of 144.390 MHz, for compatibility with local stations that are not frequency agile. We are working to enable local fixed stations to operate on 145.010 MHz as well.

Several members of the Atikokan ARC are now building VHF digital stations. Plans are underway to train them in Winlink and APRS.

Regional digipeaters are being tested for packet abilities and are being re-programmed as needed. This will allow us to send Winlink mail via the APRS digipeaters in the region during emergencies. It is worth noting that in the Kenora and Rainy River Districts, we have a tremendous number of digipeaters that are underutilized.

Killarney District
DEC Stiig Larsen, VE3LBX

Manitoulin & North Shore EC, Jim McLean, VE3LJM, reports: Several members of the MARC Inc participated in the Ontario QSO Contest held on Saturday, April 20 and Sunday April 21. Antennas and equipment were set up at Twilight Isle Resort on Manitoulin Island, and, as with tradition, wind, snow and freezing rain reared its ugly head, but didn't dampen the enthusiasm as Igor, VE3ZF, Patrick, VE3HZQ and Ron, VE3NDI, worked the frequencies until the contest closed. As you may recall the Manitoulin club won the contest last year.

Sudbury EC, Alan Viitala, VA3AJV, reports: Work is always ongoing to generate new ARES members and to keep the interest up. Future plans are to re-establish a relationship with local Red Cross and also to reach out to the Salvation Army and even the hospital and health unit. These are future plans and depend on membership and interest levels. The hope is to also to gain new members from the above mentioned organizations which will certainly help the ARES unit going forward.

Work with the Sudbury EOC is also ongoing and support from the City of Greater Sudbury Emergency Management continues to be strong.

– Al Boyd, VE3AJB

DECs reporting:
VA3s: PC.
VE3s: LBX, JX, FAL.
ECs reporting:
VA3s: AJV, and SPT.
VE3s: LJM, SUT, RQR, JX, MXJ

Official Bulletin Stations
OBM Brad Rodriguez, VE3RHJ
VA3BIX, VA3RRZ, VA3STG, VE3GIO, VE3JUZ, VE3KII, VE3SHM, VE3VBR and VE3VY.

Official Observer Report
Norm Bell, VE3XRC
Total hours monitoring:
March 15
April 11

ONTARIO SOUTH:

SM: Ian Snow, VA3QT
SEC: Vacant
SBM: Brad Rodriguez, VE3RHJ
STM: James Davidson, VE3TPZ
Website: http://ontario.racares.ca

MARCH-APRIL SM REPORT:

The highlight of this reporting period was an ARES Leadership Seminar held in the London Emergency Operations Centre on April 20. The objective was to report on Field Organization renewal efforts, the Province of Ontario Interoperability Task Group (POINT) and the National Amateur Radio Emergency Database (NARED). This was followed by four discussion groups (Section Organization, Communications Interoperability, NARED and digital communications) whose aim was to provide the Section Manager with feedback and direction.

In May of 2012 the Ontario government sought Amateur Radio participation in POINT, a representative group of emergency response stakeholders developing an interoperability strategy for the province. The ONS SM currently represents the four Ontario SMs to the task group. While much of the POINT work is still preliminary or organizational in nature, one factor has been clarified. It is provincial policy that the decision to incorporate ARES into a municipality's emergency plan rests with the Community Emergency Management Coordinator. This is in accord with traditional ARES policy. The fundamental relationship between an ARES group and the local community is between the EC and the community official responsible for emergency planning. ECs are encouraged to foster this relationship as only you can do this. ARES managers at the district, section, provincial and national level are focusing on developing the procedures and training needed to facilitate inter-group mutual aid and cross-border deployments.

I'm pleased to report that we moved from two groups reporting in March – when the new automated report form was introduced – to seven in April. Developed by Scott Carter, VE3CGN, some "wrinkles" are being worked out of the software, and it has now been proposed to the RAC webmaster for possible installation on the RAC server for cross-Canada use. I encourage the ECs to embrace this reporting system; it has statistical information that is needed at the SM level for management purposes, but more importantly the Field Report and Community Event sub-sections are how the group's activities find their way into TCA. You can log in at http://www.emergencyteam.ca/ares/portal/login.php. Personally, I find the standard report format somewhat lacking in the modern age. If you have ideas for improving it please send them to me at va3qt@rac.ca.

Its nice to see the daily 80m ONTAR Service Net functioning regularly on 3755 LSB. Traffic Manager Shawn Gartley, VE3PSV, is seeking Net Controllers to operate on the 40m Trans-Provincial Net on 7055 LSB. If you can help out please contact Shawn on the TPN (0700-1700 Eastern) or via NTS message.

Activity Reports

(With apologies to the groups whose reports were truncated by the reporting system – now fixed).

EC Wayne McLean, VE3WWM, reported that **Dufferin ARES** commenced a 10-week Basic Amateur Radio course on April 22. EC Bob Droine, VE3LKD, of **Grey County ARES** reported on his participation in the London seminar.

EC Alle Brander, VE3CWL, of the **Stratford/Perth** group reported that he, Tom, VE3KVD, Ken, VA3KEM and Dean, VA3DBD, attended the EC CanWarn training session at London. Alle also commented that the Leadership Seminar was excellent training; unfortunately his comment on the NARED project was truncated.

EC Tim Eaton, VE3RTE, noted in the Community Event section that four members met at the **Port Elgin** EOC station where they confirmed that the HF, VHF and digital radios and generator are ready for Field Day. Tim also participated in the Leadership Seminar.

Bruce District EC Brad Rodriguez, VE3RHJ, was on vacation for much of April but he did attend a meeting of the **Guelph Emergency Communications Group**, reporting that long-time EC George Baukman, VA3GCB, is preparing to hand over the leadership reins of this very active group. Well done George, and thank you for your considerable years of support to the group.

Finally, Kevin G. Smith, VA3KGS, President of the **Niagara Peninsula ARC**, has announced that the club has established a "Ground Wave Emergency Network" (GWEN) with weekly sessions. Check out http://www.nparc.on.ca/gwen/GWEN_niagara.html for the details. Join in the fun.

– Ian Snow, VA3QT

DECs reporting:
VE3RHJ.
ECs reporting:
VA3s: AJV and SPT.
VE3s: WWM, LGN, EQV, CPP, BTC, DPG and TMY.

OBS Reporting:
March: VE3GIO and VE3VBR.
April: VE3GIO and VE3VBR.

Traffic Totals:
March: VE3RHJ 13 and VE3TPZ 12.
April: VE3TPZ 11.

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http://www.qcwa.org

QCWA
QUARTER CENTURY WIRELESS ASSN., INC.

Public Service Honour Roll:
March: VE3RHJ 73 and VE3TPZ 52.
April: VE3RHJ 41 and VE3TPZ 71.

ONTARIO EAST:

SM: Michael Hickey, VE3IPC
Email: ve3ipc@gmail.com
SEC: Vacant
OBM: Brad Rodriguez, VE3RJH
Email: ve3rhj @ rac.ca
Website: http://ontario.racares.ca

MARCH-APRIL SM REPORT:

On May 11, I had the occasion to attend the Smiths Falls Hamfest as Section Manager to help with the RAC and the ARES tables. I found that the RAC table was in good hands with RAC officer Norm, VE3LC and with the RAC Deputy Director Glenn, VE3XRA. The ARES table was being manned by Eastern Ontario ARES DEC Lance, VA3LP. I was happy to meet a number of Club Presidents and some Execs who came to say hello; and I enjoyed a short discussion on the possibility of Glenn and I coming to visit their club sometime in the fall. I was glad to exchange hellos with some of the ARES folks there as well.

After the hamfest was over, the Saint Lawrence Valley Repeater Council (SLVRC) meeting was held with many in attendance from various clubs and also from ARES. DEC Lance, VA3LP and I decided to attend the meeting so we could bring up the issue of having them create a Packet Radio digi/nodes and Winlink 2000 system directory where *all* ARES groups and clubs will be able to register their systems for the entire Ontario East Section. The SLVRC have graciously agreed to create a new template to store the data that would be sent to them when we get the go ahead to invite all clubs and ARES groups to register their systems. Stay tuned for more information.

I look forward to attending the upcoming annual Eastern Ontario ARES District meeting being conducted by the new DEC Lance, VA3LP, for which I will be an attendee and no longer the organizer. I was also invited to give a short presentation. More to come in the next TCA issue.

Help Wanted

I am still in need of an ARES Section Emergency Coordinator so if you are interested and have or had working ARES leadership experience, please contact me at ve3ipc@gmail.com. I also need a Club Liaison Coordinator to coordinate with each Amateur Radio club's liaison as this will greatly improve communications between RAC and the clubs. For more information on the job description, please contact me.

No doubt all Amateur Radio clubs and many ARES groups have held their annual Field Day event where challenges always present themselves, where everyone enjoyed good camaraderie and the lessons learned will carry them on to next years FD event with that much more experience and expertise. I congratulate those who have invited the public at large and local officials to attend, and also carried on a PR campaign and tours to encourage the interest for new hams to join our ranks.

I wish everyone a great summer.

Eastern Ontario ARES District:

Submitted by the Eastern Ontario ARES DEC Lance Peterson, VA3LP

The Eastern Ontario ARES District groups are having many of the same challenges that have plagued them for years. The biggest concern is the low number of Amateurs that are willing to become involved with ARES and turn out for exercises in support of their communities. This is where mutual aid can be applied, but it must be requested in a timely manner. Another challenge is that although we have been previously involved with yearly events, we must be proactive and contact the event organization early to ensure our involvement.

Stormont, Dundas & Glengarry (SD&G)-ARES group

Submitted by EC Earl, VE3IMP

The SD&G-ARES group continues to read the Ontario Bulletins each Monday at 7 pm local on the club's 2m net conducted on VE3SVC (147.180MHz+). Amateurs are also asked to check in on VE3MTA (UHF) and our D-Star repeater. This process confirms the serviceability of our repeater systems at least once a week should they be required by ARES.

Submitted by AEC Doug, Pearson, VE3HTR, for SD&G-ARES

The Stormont, Dundas and Glengarry (SD&G)-ARES group's last meeting was held on April 24 giving updates on ARES activities to the membership.

On Sunday, April 14, the Seaway Valley Amateur Radio Club (SVARC) Inc and the SD&G ARES group assisted our local St. John Ambulance Brigade 103, with communications for the Raisin River Canoe Race. The race is organized each year by the Raisin River Conservation Authority. This was the 41st race and was won in a time of 02:21:38. Please see page 46 for a complete report.

Prescott-Russell (PR)-ARES group

Submitted by Acting EC Jim, VA3KV

The **Prescott-Russell (PR)-ARES group** held its regular "Triode Thursday" get-togethers every Thursday evening throughout March at the Chamberland Centre community hall in Rockland, followed by a social gathering at the local Tim Hortons. At these informal meetings, we review recent articles that appear in QST or TCA. Our VGA projector system makes it easy to review digital issues of articles and associated videos offered by ARRL.

YouTube is also a great resource for videos that we explore. Most videos and discussion this month centred on loop antenna construction and theory, as well as new Amateur equipment that is currently being released. Very interesting videos are also offered by Gary Pierce, KN4AQ, on his Hamradionow.TV website from which we reviewed Episode 47, "HF Digital Voice: FDMDV2 and CODEC 2". This was a great video for understanding what those new digital signals that are popping up on HF phone bands are all about.

Radio Amateurs in Eastern Ontario should note that our Alfred repeater, VA3PRA, on 145.47, is currently off the air for maintenance and some upgrades which have turned out to be challenging to implement. We will try to return this repeater to normal operation as soon as possible.

Submitted by PR-ARES Interim EC

Lance Peterson, VA3LP

The **Prescott-Russell (PR)-ARES group** continues with ARES nets every Tuesday evening on the local ARES Repeaters VE3PRV and VA3PRA (presently down for repairs) and usually gets between 8 and 15 checkins.

The group turned out for the annual Clarence-Rockland Classic Bicycle Race. It was a gruelling 84K race throughout the rural areas of the City of Clarence-Rockland. This year an APRS in the lead vehicle provided continuous Intel on the location of the frontrunners. This information was displayed on a large screen at the Race organization HQ. This allowed the organizers to be at specific points in the race on time and allowed the cooking team to ensure timely preparation of the end of race meal.

DARF IS THE DEFENCE OF AMATEUR RADIO FUND

It is a Trust Fund established in the early 90s by the Canadian Radio Relay League to provide financial support for research, and to defray travel expenses of a delegate to World Radio Conferences to defend the Amateur Radio bands.

The Fund is maintained by Donations from individual Canadian Amateurs and from Canadian Amateur Radio Clubs. Donations are deposited in the trust fund account and the fund is administered by the three DARF Trustees.

The trust is entirely separate from, and cannot be used for, RAC financial transactions. Donations may be made by cheque only.

Cheques should be made out to "The Defence of Amateur Radio Fund" and may be sent by mail to:

"Defence of Amateur Radio Fund", 720 Belfast Road, Suite 217, Ottawa K1G 0Z5

Visit <darf.rac.ca> for more information.

The following operators provided professional communications in support of this event: Don, VE3RM – Net Control; Chris, VA3NKE, Jim, VA3KV, Joy, VA3YOJ, Mark, VE3TKN, Ron, Va3RRZ, Jean, VA3CO, Jean, VE3ZJS, Lance, VA3LP, Al, VA3ONN and Al's wife Suzanne. Thanks go to all for their continued support of the PR-ARES Group activities.

Ottawa ARES (EMRG) group

Submitted by AEC Mike, VE3FFK for EC Richard, VE3UNW

Ottawa ARES (EMRG) group membership has seen March as mostly an infrastructure month at EMRG / Ottawa ARES. Work on the packet system on 145.010 continued, giving us (and more importantly the Red Cross), the ability to connect to the Red Cross in Pembroke. Call signs for the various packet machines have been sorted out, with VA3OFS in Barrhaven, and VE3OCE at Alta Vista in central Ottawa.

The monthly repeater tests – headed by Dave, VE3KMV, and assisted by Stuart, VE3SMF, Tracy, VA3TXN, Arthur, VA3BIT, Paul, VE3CPH and Ron, VA3ACZ – went well as usual. AEC Mike, VE3FFK, reported that the VE2CRA repeater and the Winlink and packet systems were running normally.

Peter, VE3BQP, the previous EC who has been working hard on the packet system, will be turning his attention to the antennas at Barrhaven and continuing to develop the interface with the Ottawa Red Cross as the snow melts and spring rolls along.

On April 28 our primary repeater was used for a Search and Rescue exercise conducted by the volunteer SAR group in the area. Preparations are underway for the Lanark Highlands Forest Rally, and the Cycle for CHEO event on May 4 and 5 respectively. In the former, the difficulty is a shortage of Amateurs available to cover the event. In the latter the difficulty is that we did not get confirmation that we would be assisting until rather late in the process. Although we have done the event for many years, the event organizers have not. This is becoming a more common occurrence as public service events undergo turnover in the teams that run them. It has happened on a few occasions now that key pieces of the corporate memory of an event reside with the Amateurs and other volunteer "worker bees" who have participated in the event for years. I wonder if other groups are finding the same situation.

Renfrew County East-ARES group

Submitted by EC Ron, VE3JRN

The **Renfrew County East (RCE)-ARES group** will begin holding its ARES net on Monday nights in the near future on the 147.060- T114.8 VE3STP RPT. This will be a new net and seperate from the regular RCW-ARES net on the Pembroke 146.760- VE3NRR RPT. The time will be finalized and the announcement will be made at a later date on the VE3STP RPT.

Lastly, we received the sad news that Ed Holmes, VA3ED, is now a Silent Key. Ed was a member of the RCE-ARES group in earlier years and headed the local computer club for several years in Renfrew Township before moving to Ottawa.

Renfrew County West-ARES group

Submitted by EC Bob Howard, VE3YX

The **Renfrew County West (RCW)-ARES group's** EC Bob, VE3YX and AEC George, VE3GPD, met with the CEMC of Laurentian Valley to establish a relationship. The meeting was productive with the CEMC gaining an understanding of our services. We determined a location off the EOC for ARES operations and discussed the installation of a permanent antenna.

A similar meeting is planned with the CEMC for the Town of Petawawa. We have had connections with Petawawa in the past, but we have to discuss how we might work with the town and see about an antenna installation at the EOC.

Early in April, one Arrow type dual-band antenna was installed on the roof of the Deep River town hall. The feedline was routed to the room near the EOC that we would use when the EOC is activated. A 2m packet/voice station has been prepared that will be kept at the Deep River EOC.

A new KPC3+ has been installed at the VE3NRR RPT site to provide a backup BBS for our Outpost operations. The KA node replaces an X-1J4 node that used to link the western part of the Renfrew County.

Lanark/North Leeds-ARES group

Submitted by AEC Norm Hagan, VE3VY

In April, the **Lanark/North Leeds (LNL)-ARES group's** Mobile Command Post (MCP) trailer was moved to the Lions RV Park site just north of Westport. It will house the WL2K Digi/Node VE3REX-7. There is now a 12-volt standby power for the Node. It remains a link to VE3VY-10 RMS Packet Internet link as well as via VE3FRG-7/VE3FRG-10 RMS Packet Internet link in Kingston. A donation of $100 was made to the Westport Lions Club.

EC Barrie, VE3BSB, was awarded a Queen's Jubilee Medial. The medal and certificate was awarded recently in Drummond North Elmsley (DNE) Township. The certificate reads:

"Barrie Crampton has been involved in the community by playing an integral part in bringing high speed/broadband Internet to rural Lanark County. He is also a member of the DNE 200th Anniversary Committee, and is coordinator of the Amateur Radio Emergency Services organization."

The news article can be seen at: http://www.yourottawaregion.com/news/article/1609461--drummond-north-elmsley

Severn ARES District Reports

Submitted by EC Terry, VA3MTT

Peterborough ARES group

The **Peterborough ARES group** in March conducted radio checks at the County Courthouse and the Peterborough Fire Hall that were done by Robert, VE3KEA and Rick, VE3IQZ and EC VA3MTT.

New radios and antennas have arrived for the new Fire Station and replacement antennas for the Police Department and Sherbrooke Fire hall. They should all be installed and tested in May.

Rick, VA3RZS and Charlotte, VA3CMR, and six other ARES members helped out for the second year in the 2013 Kms for Care walk. There were 481 walkers and runners as the event had a half-marathon, a 5K walk and run, a team challenge and a family fun walk and run

Rick, VE3IQZ, has taken on the job as Official Bulletin Station (OBS) for Peterborough ARES and has been reading them on our weekly Wednesday night net on 146.625 MHz at 7 pm. Good feedback has been received from members and non-members regarding the Ontario bulletins.

The Peterborough ARES group in April conducted radio checks at the County EMS and the City Police Station that were done by Robert, VE3KEA and Rick, VE3IQZ and EC VA3MTT.

Greg, VE3GVJ and Rob, VA3OWE, played hosts for the club's regular Sunday afternoon Fox Hunt in rural Hope Township, north of the town Port Hope. This hunt was a little different as we operated as a tactical unit instead of as individual hunters to simulate an emergency situation. Weather was great for a Fox Hunt in late April: 22 degrees, sunny and a light S/E breeze.

The starting point for the Fox Hunt was conveniently located at the car pool parking lot on Highway 28 (County Road 28) and County Road 74, locally known as Dale Road, just south of Bewdley at 2 pm. The PBO repeater was used as the talkin frequency and Greg greeted the hunters: VA3NW, VA3DEV, VE3LDF, VE3BLM, VE3TZM, VE3IQZ, VE3TJM and VA3MTT as they arrived.

VA3OWE opened the hunt on 146.580 simplex with five minutes of transmit at five watts power for orienteering in terrain that was mostly unfamiliar to everyone except for the hosts. Transmit intervals were roughly two minutes on and five minutes off for the duration of the hunt. Hunters quickly determined that the fox was west of the Start point and agreed to use the fox's simplex frequency to communicate, despite the direction limitations of beam antennas being used by two of the hunters.

VE3NW and company overshot the fox after four foxy transmissions and VE3IQZ and VE3BLM got on a dead end road near a conservation area, which they erroneously assumed was the fox's den, when in fact line-of-sight they were only about one kilometre away, but nearly five kilometres by road.

Hunters arrived on the lot, but still could not find the fox until they got out of their vehicles. VA3NW, VE3LVF and VE3DEV were the first to see the fox, but VE3BLM was hot behind them and Theresa was the first to touch the fox so she won the hat, after nearly 90 minutes of hunting. During the ensuing congratulations and bragging, hunters forgot for a minute that VE3IQZ was still hunting so he was called to the location within minutes of the winners.

Hats off to VE3GVJ for a well organized event, and thanks go to all the fox hunters for making this first tactical Fox Hunt effort for Greg and Rob a success.

Note: No foxes were hurt in this event, hi.

– 73, Michael Hickey, VE3IPC

OBS reporting: VA3BIX, VE3KII, VE3VY and VE3RRZ.

Districts reporting: Eastern Ontario and Severn.

ECs reporting: VE3VY, VE3FFK, VE3YX, VE3JRN, VA3KV, VA3LP, VE3IMP and VA3MTT.

DECs reporting: Lance, VA3LP.

RAC FIELD ORGANIZATION REPORTS

National Traffic System (NTS) Net Reports

Net (Manager)	Sessions	QNI	QTC
March 2013:			
Alberta ARES	12	–	0
Alberta Aurora (VE6TRM)	30	–	0
APSN (VA6IX)	30	–	0
BCEN (VE7XLH)	31	211	21
BCYTN (VE7WJ)	31	556	64
CECA (VE7GN)	4	47	12
MEPN (VE4LB)	31	614	6
MMWXN (VA4GD)	31	586	0
MRS (VE4HK)	9	321	0
MSMN (VE4AEW)	21	540	0
OPN (VE3XRC)	31	129	52
April 2013:			
Alberta ARES	12	–	0
Alberta Aurora (VE6TRM)	31	–	0
APSN (VA6IX)	31	–	0
BCEN (VE7XLH)	30	218	16
BCYTN (VE7WJ)	30	589	42
CECA (VE7GN)	5	61	9
MEPN (VE4LB)	29	534	7
MMWXN (VA4GD)	30	577	0
MRS (VE4HK)	9	260	0
MSMN (VE4AEW)	22	565	0
OPN (VE3XRC)	30	123	37
OLN (VE3SHM)	30	370	31

ONTARIO GTA SECTION REPORT

SM: George Duffield, VE3WKJ
ASM: Vic Henderson, VE3FOX
ASM: James King, VE3ETZ
SEC: Rick Harrison, VA3NV
SBM: Brad Rodriguez, VE3RHJ
STM: Vacant

MARCH-APRIL SM REPORT:

As we move from winter into spring and as summer approaches, the calendar of activities fills up quickly and many of our ARES groups find themselves busy virtually every weekend. However, this is the value of ARES: to be committed to the community and to use events as training exercises. The disappointment of the month was the news that York Region EC Mark Magner, VA3CT, has tendered his resignation. Mark has done an outstanding job in York Region but indicated he needed some time away. Mark will work with YRARC to select a new EC. Our thanks and best wishes are extended.

One of the highlights of the period was a Leadership Seminar developed by ONS SM Ian Snow, VA3QT, for his DECs and ECs. SEC Rick and I attended as observers and found it to be very informative and helpful for ARES members in ONS and beyond.

My thanks to Ian for his continuing proactivity and leadership. As ARES continues to develop in the GTA Section, we will look to have a similar event. Please see the article on page 47 for more information on the Leadership Seminar.

ASM James King, VE3ETZ, is completing a presentation module on WL2K to instruct ARES operators on this digital method of EmComm. I also wish to thank ASM Vic Henderson, VE3FOX, for creating a Section Contact Manual which shares critical information about the Section and its key people.

SEC Report

SEC Rick Harrison, VA3NV

I am pleased to report an increase in ARES membership of approximately 15% in March and the number slightly increased again in April.

The need for a Section Emergency Communications Plan is evident, and I am in the process of developing one. Reports from ARES groups indicate that they are extremely busy with community and training events. This is especially true in GTA West.

Arrangements are being made for a GTA Simulated Emergency Test to be held early in June which will focus on interoperability, both within and outside of the Section. I continue to work with the clubs in Durham to assist with the renaissance of ARES in the region. I am hopeful this will occur soon. The local and Section nets were busy throughout the period of reporting.

GTA West

DEC Glen Marett, VE3CEZ

I attended an Amateur Radio seminar at Heritage Park in Milton, which was put on by Brampton/Caledon ARES (VA3RMU, VE3QSL) and Milton (VE3OXP) for the Air Cadets, and I assisted with the CW session. This was in support of the 820 Chris Hadfield Air Cadet Squadron's contact via telebridge with Chris Hadfield and the International Space Station. VE3CEZ took photos throughout the seminar and one was published in *The Milton Champion* newspaper on March 21.

The contact took place on April 6 and I assisted with the set up and then projected the orbital track of the ISS for cadets and visitors to view.

Oakville ARES

EC George Davis, VE3OGP

Oakville ARES assisted with radio communications at the Chilly Half Marathon & Frosty 5K in Burlington on March 3. Participants were: VE3CEZ, VA3EEG, VA3NV, VA3PRE, VA3PRS, VE3DDL, VE3OGP, VA3CQC, VA3BL and VE3ITM.

Oakville ARES continued to have a good turnout for the weekly net. The net on March 11 included an NTS message exercise.

Brampton/Caledon ARES

EC Richard Upfield, VA3RMU

Brampton/Caledon ARES introduced Amateur Radio to a group of Girl Guide leaders and has received positive feedback from them. A seminar on Amateur Radio followed by a video about the ISS was presented to Air Cadets of 820 Chris Hadfield Squadron in Milton. An introduction to CW, including a hands-on session, was given by VE3QSL (Brampton) and assisted by Gord, VE3OXP (Milton ARES).

Contact between the Air Cadets and Chris Hadfield, Commander of the ISS, took place on April 6. The contact lasted approximately 10 minutes and was conducted through an Amateur Radio station in Argentina (LU8YY) via a telebridge link to Milton. Our thanks go to Steve McFarlane and his team from ARISS Canada for mentoring and conducting the contact. Other thanks also go to Richard, VA3RMU, Paul, VA3PB, Glenn, VE3CEZ, Gord, VE3OXP, Vic, VE3FOX and George, VE3WKJ for assisting in setting up the presentation equipment and for projecting the ISS orbital track for the group to follow. Work is in progress for a demonstration of Amateur Radio to the Brampton Sea Cadets.

Burlington ARES

EC Kevin Andrews, VA3KRA

Burlington ARES managed communications for the Chilly Half Marathon & Frosty 5K race in which just under 4,000 participants competed in the runs and walks. This was a very successful event overall for both radio operations and the Joseph Brant Memorial Hospital. Thank you to Gary, VE3TTO, George, VE3OGP, Glenn, VE3CEZ, John, VA3BL, Peter, VA3PRE, Jeff, VA3CQC, Rick, VA3NV, Herb, VA3HRB, Denis, VE3KVE, Darren, VA3EGG, Jack, VE3ITM, Derek, VE3DDL, Peter, VA3PRS, Rob, VA3WXR and Kevin, VA3KRA.

EC Kevin attended a debrief for the Chilly Half Marathon & Frosty 5K, the Halton Red Cross Disaster Management meeting and the Halton Region Emergency Communication Team meeting.

Burlington ARES provided five members – along with 13 others from ARES and ARCs from Toronto, Oakville, Milton, Hamilton and Brantford – to assist with the 20th edition of the Paris to Ancaster Bicycle race. There were 2,226 riders on a course with 26 different checkpoints along the 70K and 40K routes covering woods, fields, trails and roadways. Communication supported logistics, bike mechanics, repair stations, bike crews and medical dispatch (if needed). Thanks to the following who participated:
Paul, VE3XPS, Ebe, VE3EBH,
Bill, VE3YR, Richard, VE3BK,
Jim, VE3PH, Will, VA3WLL,
Sam, VE3CMS, Rob, VE3CYE,
Peter, VA3PRE, Joan, VE3JNX,
Tom, VE3KTP, Marty, VE3QEE,
Derek, VE3DDL, John, VE3POJ,
Stan, VA3SBB, David, VA3ADG,
Gary, VE3TTO and Kevin, VA3KRA.

April 27 had members of the Burlington and Oakville ARES assisting with the communications for the Ford Race to End Diabetes event with the proceeds of this event going to the Juvenile Diabetes Research Foundation. Thanks to Peter, VA3PRE, Stan, VA3SBB, Derek, VE3DDL, Rick, VA3NV and Kevin, VA3KRA, for their participation.

Mississauga ARES

Thomas Bernard, VA3TMB

Fourteen ARES operators completed training based on Volume 1 of the RAC ARES training manual. A total of 16 hours per operator was dedicated. Mississauga ARES reports their meeting was held on April 18 with nine members in attendance.

Halton ARES

EC Lyle Winfield, VA3VI

Lyle, VA3VI and AEC Bob, VA3RJS, attended the HRECT meeting in Oakville. We are currently planning spring and summer activities including Classics Against Cancer, Highland Games, Field Day and the Simulated Emergency Test.

The VE3PKG packet node and RMS gateway are operational, both with 100% uptime for the month of April. The VHF (VE3OD) and UHF (VA3HR) repeaters are also operational, both with 100% uptime in April. During an April ice storm there was a 12-hour AC power outage at the repeater site. However, the repeaters remained operational on backup battery power for the full duration of the AC power outage.

– George Duffield, VE3WKJ

DECs/ECs reporting:
DEC: VE3CEZ
ECs: VA3RJS, VE3OGP, VA3KRA, VA3RMU and VA3TMB.

OBS Stations reporting: VE3JUZ

QUEBEC:

SM: Gilles Larivière, VA2SGL
SEC: Normand Pitre, VE2NHK

Le 26 mars, le Club Radio Amateur Laval Laurentide (CRALL) a faite son 2^{e} contact avec la Station Spatiale Internationale NA1SS pour l'école Des Cardinaux à Sainte Rose, Laval via télébridge avec l'aide de K6DUE le contact a durée environ 10 minutes 30 secondes. On remercie Joël, VE2WIZ, d'avoir coordonné le projet et Alonzo, VE2PKO, d'avoir épaulé Joël. Plus les autres qui on aider d'une façon ou d'une autre.

On March 26, the Laval Laurentide ARC (CRALL) made their second ARISS contact for the Des Cardinaux school in Sainte-Rose, Laval. Contacting NA1SS was made possible via telebridge through K6DUE. The contact lasted about 10 minutes and 30 seconds. We thank Joel, VE2WIZ, for coordinating the project plus Alonzo, VE2PKO, for helping Joel and everyone else who helped in any way to make it realizable.

Le 13 avril, votre coordonnateur d'urgence de section a pris une table au hamfest du Montreal Amateur Radio Club le tout c'est bien déroulé, répondu aux questions du publique. Le but étais de faire connaître SURA.

On April 13, your Section Emergency Coordinator hosted a table at the Montreal Amateur Radio Club Hamfest. Everything went well and all questions were answered. The goal was to make ARES better known.

– Normand Pitre, VE2NHK

MARITIMES:

SM: Craig Seaboyer, VE1DSS

I am looking forward to the first spring fleamarket of our season on June 1 in Halifax hosted by the Halifax Amateur Radio Club (http://www.halifax-arc.org/node/46/html_links.htm#Down East Flea Market).

It is somewhat difficult to think of spring with yet another day of snow flurries outside.

We have three fleamarket venues this year again, Halifax NS, Greenwood NS and St. John NB.

For a great central location to find out all the latest news from our area, please check out the Maritime Amateur website (http://ve1jbl.webs.com/) maintained by the former SM Jim Langille, VE1JBL.

Other news includes a great opportunity from my old high school, Charles P. Allen High in Bedford NS, when students were able to chat with Canadian astronaut Chris Hadfield, VA3OOG that is on the International Space Station. For more information see the article on page 24 or visit: http://thechronicleherald.ca/metro/383650-astronaut-students-share-final-frontier.

– 73, Craig Seaboyer, VE1DSS

COMING EVENTS

THE HAMFEST AND FLEAMARKET CALENDAR

The following events are listed by date. Some dates and details are tentative.

50TH INTERNATIONAL HAMFEST

Sponsored by International HamFest Inc
Date: Friday, July 12 to Sunday, July 14.
Time: Friday 6 pm; Saturday 9 am; Sunday 7 am.
Place: Boissevain, Manitoba; at the US Lodge in the International Peace Garden south of Brandon, MB on the Canadian/US border.
Description: Fleamarket, Rabbit Hunts, Mobile Judging, Homebrew Contest, Prizes, Food Concession, Sat night Dance with Dakota Rose Band, Free Sunday Breakfast for those registered.
Cost: $13 per registrant for the event.
Talkin: VE4IHF 146.85- no tone.
Information: Contact <ve4qk@mts.net>.
Webpage: http://www.mts.net/~holderr/ihf.htm

ONTARIO HAMFEST

Sponsored by the Burlington ARC
Date: Saturday, July 13.
Time: Robert St Gate – Inside & Commercial Vendors 7 am and Tailgate Vendors 8 am; Public: Thomas St Gate *only* 9 am.
Place: Milton, Ontario
Cost: Public: $7; Tables: $14 each; Tailgate Permit: $7 per space.
Talkin: 146.520 –.
Information: Co-Event Coordinators: Chuck Wilson, VE3IUO; Herb Teather, VA3HRB; Email: barc.ontariohamfest@gmail.com. Mail Vendor reservations to: Norm Freidin, VE3CZI, 2129 Larabee Court, Burlington, ON L7P 3S3, 905-335-8962 <barc.ontariohamfest@gmail.com> or <ve3czi@arrl.net>.
Webpage: http://www.barc.ca/Ontario%20Hamfest.htm

MARMFEST

Sponsored by the Manitoba Amateur Radio Museum (MARM)
Date: Friday, August 9 to Saturday, August 10.
Time: Friday: Registration 4 pm to 8 pm. Meet & Greet 8 pm.
Place: Austin, Manitoba; One mile south on #34 at Austin, Manitoba in the Heritage building on the Grounds of The Manitoba Agricultural Museum.
Cost: Public $7; Tables $5.
Description: Huge fleamarket: food concession. On site ladies activities, Saturday night Roast Beef supper; lots of campsites near the Fest.
Talkin: VE4MTR repeater 146.91-
Information: Dave Snydal, VE4XN, 25 Queens Crescent, Brandon, MB R7B 1G1, 204-728-2463 (phone/fax) or dsnydal@mts.net.
Website: <http://marminc.ca/>

OTTAWA (CARP) ANNUAL HAMFEST

Sponsored by the Ottawa ARC
Date: Saturday, September 7.
Time: Building Vendor Setup: 7:30 am to 9 am; Tailgaters Open: 8 am; Indoor Fleamarket Open: 9 am to Noon.
Place: Ottawa (Carp), Ontario; at the Carp Agricultural Fairgrounds (W. Erskine Johnson Arena); 3832 Carp Road (near Falldown Lane).
Cost: $6 General Admission, $12/table (plus admission), $5/tailgate (plus admission).
Talkin: VE2CRA, 146.94–, 100 Hz.
Description: The region's largest fleamarket and hamfest. Major door prize draws! We also have onsite Amateur Radio licence exams! Get your licence or upgrade during the hamfest!
Information: Ed Sich, VE3WGO, 613-963-8065; or contact <fleamarket at oarc.net>.
Webpage: http://www.oarc.net/fleamarket

KARC HAMFEST 2013

Sponsored by the Kingston ARC and the Military Communications & Electronics Museum
Date: Saturday, September 14.
Time: Vendors 7:30 am; Public 9 am.
Place: Kingston, Ontario; at the Military Communications & Electronics Museum, 95 Craftsman Blvd, Kingston, ON K7K 1A1.
Cost: Tables are $10 each; admission is a *donation* to the Museum.
Talkin: VE3KBR 146.940-, 151.4Hz tone.
Information: Douglas Richards, VE3FFR,
Terry Barret, VA3KLG, Steve Cutway, VE3KC; contact: <hamfest@ve3kbr.com>
Webpage: http://www.ve3kbr.com

HAMFEST 2013

Sponsored by the Manitoulin ARC and Sudbury ARC
Date: Saturday, September 14.
Time: Vendors 7 am; Public 9 am.
Place: Garson Ontario; Garson Arena Community Hall, 100 Church Street.
Description: 3rd annual co-hosted Hamfest with commercial exhibitors, Amateur Radio enthusiasts, electronics, computers, many more. Complete facilities onsite including snack bar.
Cost: Tables only $10; tailgate only $7; General public admission $5.
Talkin: 147.000 MHz (-) PL 100 HZ.
Information: To book tables or for more info contact Bob Playter, VE3TKH, 705-859-3211 or randbp69@gmail.com
Webpage: http://www.ve3rmi.org

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LARC 36th ANNUAL HAMFEST

Sponsored by the London ARC
Date: Sunday, September 22.
Time: Vendors: 8 am; Public 9 am to 12 noon.
Place: Hellenic Community Centre, 133 Southdale Road W (new location!).
Description: Commercial dealers, Free Parking, air conditioned, wheelchair accessible with handicap washrooms.
Cost: Tables $20;
Public $8 (age 10 and up).
Talkin: VA3LON, 147.060, PL 114.8.
Information: Contact: Ruth Dahl, VE3RBO, 519-455-9465 or larchamfest@gmail.com. See website flyer for info and directions.
Website: http://www.larc.ca

COMFEST 2013

Sponsored by Delta Amateur Radio Society
Date: Sunday, September 29.
Time: Public 10 am.
Place: Delta, British Columbia; the South Delta Recreation Centre on 56 Street just off Highway 17
Cost: $5.
Description: Amateur Radio swap meet.
Information: GI@deltaamateurradio.com
Webpage: http://www.deltaamateurradio.com

HARC HAMFEST 2013

Sponsored by the Hamilton ARC
Date: Saturday, October 5.
Time: Vendors 7 am; Public 9 am.
Place: Ancaster, Ontario; the Concession Building at the Ancaster Fairgrounds, 630 Trinity Road, Ancaster, L0R 1R0.
Description: An Amateur Radio, computer, and electronics fleamarket with parking and Snack Bar onsite.
Cost: General Admission: $7 per person.
Talkin: 146.76 (-) with tone 131.8 VE3NCF
Information: General info: John Boswell, VA3BOZ, <va3boz@hamiltonarc.ca> or at 905-227-0155. Vendor liaison: Mardy Eedson, VE3QEE <ve3qee@hamiltonarc.ca> or 905-648-0187.
Mail payment to: The Hamilton ARC, 117-350 King Street East, PO Box 75073, Hamilton, Ontario L8N 4G6.
Tables are reserved upon receipt of payment on a first come basis. Please book in advance to avoid disappointment.
Webpage: http://www.hamiltonarc.ca/index.php?module=htmlpages&func=display&pid=38

SARA FLEAMARKET

Sponsored by the Southern Alberta Repeater Association
Date: October 5.
Time: Vendors 10 am; Public 11 am.
Place: Calgary, Alberta; Eastside City Church, 1320 Abbeydale Drive SE, Calgary, AB T2A 7L8
Description: Free Parking; Free Coffee; Snack Bar with Famous SARA Dogs; Commercial Dealers. A map is available at: http://411.ca/business/map/6005347
Cost: Vendors & Public $5;
Tables $10 each
Talkin: 146.610 -600
Information: For more information or to reserve tables, call Ken Oelke, VE6AFO, at 403-226-5840 or ve6afo@cia.com
Website: http://saralink.ca/

MONTREAL SOUTH SHORE HAMFEST

Sponsored by the Club Radio Amateur Rive-Sud de Montréal
Date: Saturday, October 19.
Time: Vendors 6 am; Visitors 9 am.
Place: Longueuil, Quebec (10 minutes from downtown Montreal); Place Desaulniers, 1023 Taschereau Blvd Longueuil.
Description: The biggest Hamfest in Quebec. Accessible to handicapped persons. Restaurant. Free parking
Cost: Table $10 (individual entry not included); Visitors $7.
Talkin: 145,390 (-) ctcss 103,5 MHz, VE2RSM
Information: Martin Fournier, VE2DNF, 450-466-2810 or <hamfest@ve2clm.ca>. François Drien, VE2FDA, 450-672-9994 or <ve2fda@ve2clm.ca>.
Webpage: http://www.ve2clm.ca/articles.php?lng=fr&pg=120

BRIT FADER SCHOLARSHIP TRUST CALL FOR APPLICATIONS

The Brit Fader Scholarship was established in 1993 by the Halifax Amateur Radio Club and endowed through the generosity of Club members and Radio Amateurs throughout the Maritime Provinces of Canada. This scholarship is intended exclusively for post-secondary educational use, to provide assistance with the cost of tuition, room, board, books and/or other fees essential to the advanced education of the recipient. The amount of the 2013 award will be $1000. Applicants must be a citizen of Canada, but without regard to gender, race, national origin, handicap status or any other factor and must be performing at a high academic level. Applicants must hold an active Basic Class or higher grade of Canadian Amateur Radio Certificate.

This Scholarship will be provided for attendance at an accredited Canadian post-secondary technical school, college or university, with preference given to applicants who have been accepted into a program in the field of electronics or electrical engineering, or related area. Application submissions must be postmarked no later than J**uly 12, 2013**. A zipped application package (Criteria; Application Form; Reference Form) is available for downloading from the HARC website at http://www.Halifax-arc.org. Follow the link to the Brit Fader Scholarship from the Home Page under “Education”.

D. Howard Dickson, VE1DHD – for the Brit Fader Scholarship Committee

WINNIPEG ARC FALL FLEA MARKET

Sponsored by the Winnipeg ARC
Date: Sunday, October 20.
Time: Coffee, muffins and eyeball QSOs 9:30 am; Vendor setup 9:45 am to 10:30 am; Buying begins at 10:30 am;
Prize draws 11:30 am.
Place: Winnipeg, Manitoba; at the Heritage Victoria Community Centre, 950 Sturgeon Road.
Description: Winnipeg’s #1 social event for Amateurs, and a fleamarket.
Cost: $3 per person. Exact change preferred. Tables: $5 each for WARC members, $10 each for others. Contact Ruth, VE4XYL, ve4se@mymts.net or 204-837-6915 for tables.
Talkin: 147.39 MHz + offset 127.3 tone.
Information: For more info or to volunteer contact Dick Maguire, VE4HK, ve4hk@rac.ca or 204-256-3143.

37TH ANNUAL YRARC HAMFEST

Sponsored by the York Region ARC
Date: Saturday, November 2, 2013
Time: Vendors 6:30; Public 9 am.
Place: Newmarket, Ontario; New venue Newmarket Community Centre, 200 Doug Duncan Drive, Newmarket, ON, L3Y 3Y9. Lat: 44.052761, Long: -79.455418.
Description: Free Coffee; Vendors galore in two separate halls; Wide aisles for scooters and wheelchairs; Exhibits and Demonstrations; Free Parking; Great Door Prizes; Refreshments; Grand Prizes; DXCC, WAS & VUCC Card Checking; Licensing Examinations (register with Hamfest Coordinator prior to the Hamfest to ensure we bring enough exams)
Cost: Admission is $7 per person for the General Public and Vendors.
Tables (six feet long) are $25 per table.
Talkin: VE3YRA: 145.350 MHz -
Tone: 103.5 Hz.
Information: Contact hamfest.yrarc@gmail.com
Webpage: http://yrarc.org/index.php/our-hamfest

SPECIAL EVENT STATION HARRIS BARN RESTORATION

Date: September 7, 15:00 (UTC) to September 8, 5:00 (UTC). All HF Bands and Modes.
Description: In commemoration of the restoration of the Harris Barn in Delta, British Columbia, the Delta Amateur Radio Society will be operating a special event station.
QSL information: QSL cards available for all contacts and work three or more stations and receive a downloadable certificate.
Information: All details can be found at http://www.deltaamateurradio.com

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"APRS" data communication system capable of exchanging position information, messages and operating frequency.

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- Sound card interface built-in
- Dual receive even on the same band

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- Compact and simple to use
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TM-281A 2 Metre Mobile

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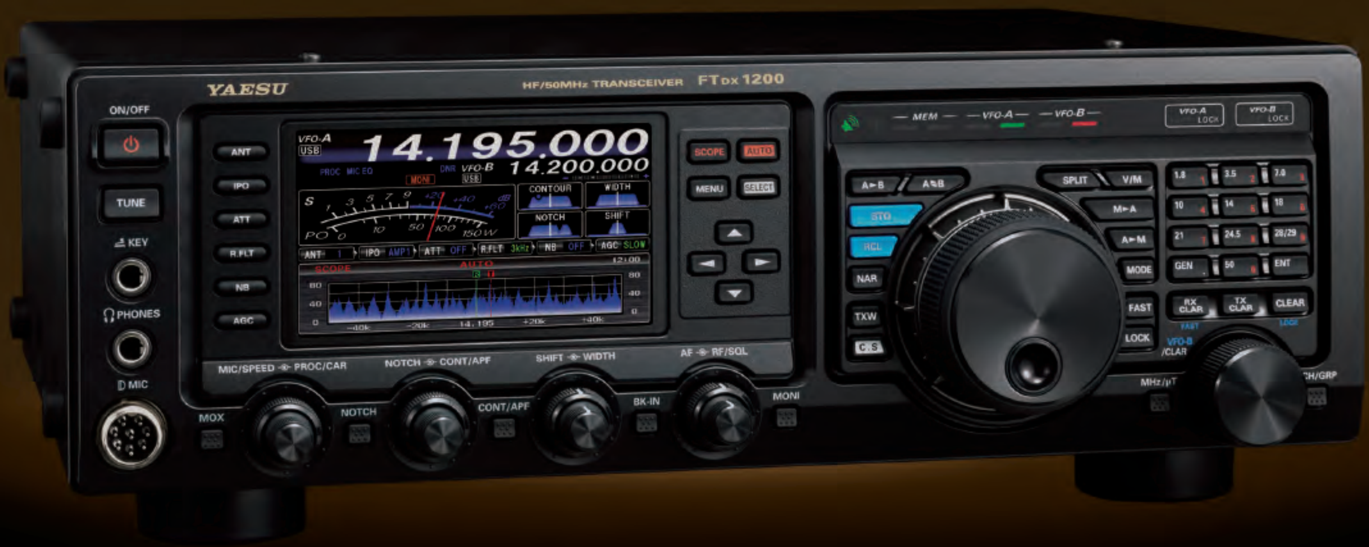

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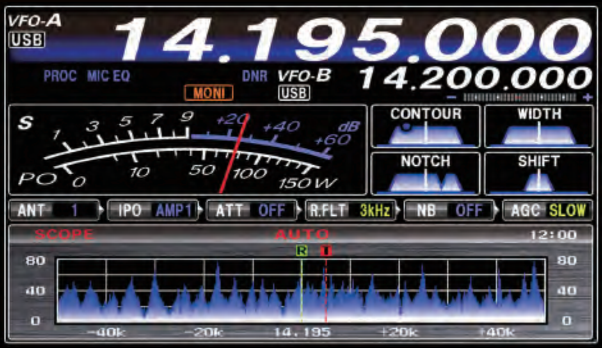
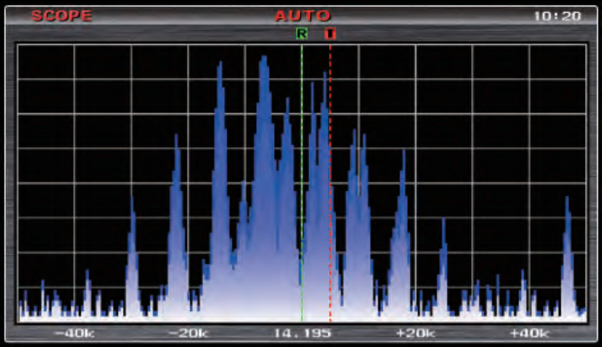


The Full Color 4.3 inch TFT display



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